



**Health Evidence Review  
Commission's**

**Value-based Benefits Subcommittee**

**May 10, 2012**

**Wilsonville Training Center  
Clackamas Community College Room 211  
29353 SW Town Center Loop E  
Wilsonville, Oregon 97070**

**AGENDA**  
**VALUE-BASED BENEFITS SUBCOMMITTEE**  
**May 10, 2012**

**9:00am - 1:00pm**

Wilsonville Training Center Room 211  
Wilsonville, OR

*A working lunch will be served at approximately 12:00 PM*  
*All times are approximate*

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|--------------|--|-----------------|
| <b>I.</b>    | <b>Call to Order, Roll Call, Approval of Minutes – Lisa Dodson</b> | <b>9:00 AM</b>  |
| <b>II.</b>   | <b>Staff report –Ariel Smits, Cat Livingston, Darren Coffman</b>   | <b>9:10 AM</b>  |
| <b>III.</b>  | <b>ICD 10 – Cat Livingston and Ariel Smits</b>                     | <b>9:15 AM</b>  |
|              | A. Infectious disease  |                 |
|              | B. Cardiology  |                 |
|              | C. Ophthalmology   |                 |
|              | D. OB/Gyn  |                 |
|              | i. Hysterectomy guidelines   |                 |
|              | E. Endocrinology   |                 |
|              | F. Lung transplant   |                 |
|              | G. Internal medicine   |                 |
|              | H. Pulmonary   |                 |
|              | I. Organ transplant-abdominal                                      |                 |
|              | J. Neurosurgery  |                 |
|              | K. ICD-10 Follow-Up  |                 |
|              | i. Oral Maxillofacial surgery                                      |                 |
|              | ii. Sports Medicine  |                 |
|              | iii. Plastic surgery   |                 |
|              | iv. Podiatry   |                 |
|              | iv. Dermatology  |                 |
| <b>IV.</b>   | <b>New Discussion Items - Ariel Smits</b>                          | <b>11:45 AM</b> |
|              | A. Percutaneous testing for drug allergies                         |                 |
|              | B. Unspecified disorders of the nervous system                     |                 |
|              | C. Amputation for burns resulting in deep tissue necrosis          |                 |
|              | D. Balloon dilation for transient cerebral ischemia                |                 |
| <b>VII.</b>  | <b>Straightforward - Ariel Smits</b>                               | <b>12:40 PM</b> |
|              | A. Straightforward table—May, 2012                                 |                 |
| <b>VIII.</b> | <b>Public Comment</b>  | <b>12:55 PM</b> |
| <b>IX.</b>   | <b>Adjournment – Lisa Dodson</b>                                   | <b>1:00 PM</b>  |

# **Section 1**

## **Minutes**

## **Value-based Benefits Subcommittee Recommendations Summary**

*For Presentation to:*

Health Evidence Review Commission on April 12, 2012

*For specific coding recommendations and guideline wording, please see the text of the 4/12/12 VbBS minutes.*

### **CODE MOVEMENT**

- Added a diagnosis code for acquired pulmonary valve disorders to a covered heart surgery line; this code will also remain on another covered line for medical treatments. Added a series of pulmonary valve repair procedures to the surgical line and remove two surgical codes from the medical line
- Rename line 274 DISEASES OF MITRAL, ~~AND~~ TRICUSPID, ~~AND~~ PULMONARY VALVES
- Multiple nasal endoscopy codes were removed from various lines where they were not appropriately placed. These codes were specifically removed from the acute sinusitis line
- Add cardiac MRI (CPT 75561-5) to line 349 NON-DISSECTING ANEURYSM WITHOUT RUPTURE
- A series of straightforward code corrections was made

### **ITEMS CONSIDERED BUT NO CHANGES MADE**

- Vascularized bone grafting as treatment for acute vascular necrosis (AVN) of the hip was not added to the line with mild AVN disease

### **GUIDELINE CHANGES**

- Changes to the Heart-Kidney Transplant guideline, Frenulectomy/Frenulotomy guideline, and Bariatric Surgery guideline were accepted for implementation October 1, 2012 as shown in Appendix B
- A new guideline restricting immune modifying agents in Multiple Sclerosis was added as shown in Appendix B
- A new guideline for the treatment of benign neoplasms of the urinary tract was accepted as shown in Appendix B for implementation October 1, 2012 in ICD-9 notation
- A modified guideline for ventricular assist devices was accepted for implementation October 1, 2012 as shown in Appendix B.
- A modified guideline for use of erythropoiesis-stimulating agents was accepted for implementation October 1, 2012 as shown in Appendix B

### **CHANGES FOR THE OCTOBER 1, 2014 (TENTATIVE) PRIORITIZED LIST AS PART OF THE ICD-10 CONVERSION PROCESS**

- Specialty group recommendations reviewed: Podiatry, Dermatology, Sports Medicine, Oral Maxillofacial Surgery, Burns, Plastic Surgery, and Neurology
- Multiple lines were renamed
- Multiple lines were deleted or merged
- Move Q66.1 (Congenital talipes calcaneovarus) to line 297 DEFORMITY/CLOSED DISLOCATION OF JOINT
- A new guideline for the management of acromioclavicular joint sprain was accepted as noted in Appendix A, with earlier implementation in ICD-9 for October 1, 2012 accepted as shown in Appendix B

- Move K00.0/520.0 (Anodontia) moves from line 675 DENTAL CONDITIONS WHERE TREATMENT IS CHOSEN PRIMARILY FOR AESTHETIC CONSIDERATIONS to line 477 DENTAL CONDITIONS (EG. MISSING TEETH, PROSTHESIS FAILURE) Treatment: REMOVABLE PROSTHODONTICS (E.G. FULL AND PARTIAL DENTURES, RELINES). The ICD-9 move will be effective October 1, 2012
- A new guideline for the treatment of benign neoplasms of the urinary tract was accepted as shown in Appendix B for implementation October 1, 2014 in ICD-10 notation
- A new guideline for complicated hemangiomas was accepted as shown in Appendix A
- A new guideline for the management of acromioclavicular joint sprain was accepted as noted in Appendix A

**CHANGES FOR THE OCTOBER 1, 2014 (TENTATIVE) PRIORITIZED LIST AS PART OF THE BIENNIAL REVIEW**

- The Paraphilias line was split into two lines, Gender Dysphoria and Paraphilias. The Gender Dysphoria line will be in the covered area of the List and initially include only psychotherapy as a treatment. HERC staff will work with experts and advocates to determine additional treatments needed. The Paraphilias line will be in a non-covered portion of the List

## MEETING MINUTES

### VALUE-BASED BENEFITS SUBCOMMITTEE

Meridian Park Health Education Center

April 12, 2012

8:30 AM – 1:30 PM

**Members Present:** Lisa Dodson, MD, chair; Kevin Olson, MD, vice-chair; James Tyack, DMD; Laura Ocker LAc; David Pollack MD; Mark Gibson; Irene Crowell RPh.

**Members Absent:** Chris Kirk, MD

**Staff Present:** Darren Coffman; Ariel Smits, MD, MPH; Cat Livingston, MD, MPH; Dave Lenar; Dorothy Allen.

**Also Attending:** Isabel Bickle; and Denise Taray, DMAP; Chris Scheuferling, DPM; Clifford Mah, DPM; Claire Merinar and Ann Neilson, Amgen; Paul Nielsen, MedImmune; Mike Willett, Pfizer; Jessie Little, ASU; Michael Adkins; Ellen Lowe, OAHHS; Brian Neiburt, OHA; Paul Flint, MD; Adam Mirarchi, MD (by phone).

The meeting was called to order at 8:35 AM and roll call was done. Minutes from the March, 2012 VbBS meeting were reviewed and approved with the correction of adding Dr. Pollack's name to the members present list. ACTION: HERC staff will post the approved minutes on the website as soon as possible.

Smits gave the staff report. ICD-10 implementation has been delayed by the Centers for Medicare/Medicaid Services (CMS) with new date of implementation given as October 1, 2014. Coffman reviewed the process for adopting a new Prioritized List. The usual biennial review List would be implemented January 1, 2014. However, there are ongoing discussions with DMAP about whether there should be a new List implemented January 1, 2014 and another major List revision with ICD-10 moved forward for October 1, 2014. It appears that the most practical, and lowest cost option would be to implement a new biennial review/ICD-10 List on October 1, 2014 with no new List implanted for the January date. HERC staff will keep the VBBS/HERC updated on this process and any decisions made at the state level.

Smits informed the VBBS that changes adopted at the March, 2012 meeting regarding continuous blood glucose monitoring have been put on hold pending the guidance creation process. These changes will not be moved to approval by the full HERC until the guidance process has been completed.

*Note: All ICD-10 review changes take effect with the next Biennial Review Prioritized List (tentatively October 2014).*

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#### **Topic: ICD-10 Podiatry**

**Discussion:** Smits introduced a summary document with suggested changes to the List from the Podiatry review group. Dr. Chris Scheuferling and Dr. Clifford

Mah were present from the Podiatry review group to answer questions and discuss these changes with the VBBS.

Initial discussion centered around moving treatment of certain foot deformities from one of two uncovered lines to a covered line (172, Preventive Foot Care) with a guideline restricting this treatment to certain high risk groups. Olson asked for evidence that treatment of this foot conditions for high risk groups is effective at reducing complications or costs. Scheuferling responding that such evidence exists, and provided some summary information to staff and stated that the podiatry group would be happy to work with staff to identify additional evidence of effectiveness. Olson asked about the history of lack of coverage for these conditions; Coffman noted that the podiatry lines wre created in the early 1990's and have not been reviewed since. The group feeling was that more information on the effectiveness of these types of treatments for this population was needed. The experts agreed to help staff identify this type of information.

The second discussion item revolved around adding bone surgical treatment CPT codes to the tendon/ligament injury line as many tendon ruptures require bone resection for full treatment. Olson again asked for more background on the effectiveness and utility of these types of treatment; Dodson and Gibson concurred. Dodson asked the experts what non-surgical types of treatment exist for these conditions. Mah responded that bracing and casting would be the typical non-surgical treatments. The group asked for more information on the effectiveness of this type of procedure.

Next, prioritization of hallux rigidus and ankle ankylosis was discussed. The experts pointed out that their major concern with this area was that ankle/large toe arthritis was prioritized lower than arthritis of other major joints such as the knee. The question was raised about why ankle and large toe arthritis has historically been given lower priority than arthritis of other joints. Coffman pointed out that ankylosis of shoulder and lower leg were covered, but not ankylosis of the upper or lower arm, hand, ankle, large toe, etc were not covered. Gibson expressed concern that there was not logical consistency on how various joints with similar conditions (i.e. arthritis of the shoulder vs the hip vs the ankle) were prioritized on the List. Dodson agreed that there should be a more comprehensive/bigger picture presentation to the VBBS on where various joint arthritis conditions were prioritized and why. Olson requested information on weither distal joint arthritis was more or less debilitating than proximal joint arthritis. The decision was to have HERC staff work with the podiatry and orthopedic experts to review how similar conditions of various joints are prioritized.

The group discussed moving certain diagnoses to the line with club feet. The experts pointed out that Q66.1 (Congenital talipes calcaneouvarus) is another term for club foot and should be moved to the same line (line 297). This was agreed on by the group. The other two codes proposed for movement were not approved as they were felt to represent flat feet. The podiatry experts pointed out that the higher degree of foot tilt sometimes seen in these codes are important to fix. The decision was made to obtain more information on the need to treat Q66.3 and Q66.6, and perhaps draft a guideline to determine at what degree of deformity do these conditions require treatment.

**Action:**

- 1) HERC staff will work with the podiatry experts to create an evidence review regarding the effectiveness of preventive foot care for high risk patients which would include repair of deforming foot lesions such as bunions
- 2) HERC staff will work with podiatry experts to determine the effectiveness and utility of bone procedures for the treatment of certain tendon and ligament injuries
- 3) HERC staff will work with podiatry experts and orthopedist experts to create a review of 1) where arthritis of various joints are currently located on the Prioritized List, and 2) how should treatment of arthritis of various joints be prioritized
- 4) Move Q66.1 (Congenital talipes calcaneovarus) to line 297  
DEFORMITY/CLOSED DISLOCATION OF JOINT
- 5) HERC staff will work with podiatry experts to determine when treatment of Q66.3 (Other congenital varus deformities of feet) and Q66.6 (Other congenital valgus deformities of feet) should be covered and consider a guideline to clarify coverage

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**Topic: ICD-10 Review Dermatology**

**Discussion:** Livingston introduced a summary document with suggested changes to the Dermatology lines base on the ICD-10 review. There was an extensive discussion about the new proposed funded moderate/severe skin disease line. The main concern was about expensive biologics for the non-psoriasis skin disorders, and not having clear evidence of benefit. Additionally, there was concern about the term “moderate” and how at the moderate level, would this truly affect an individual’s functioning. While this is clear for severe, moderate may not have similar effects, especially in a subjective data point.

There was a motion to table this new Moderate/Severe Inflammatory Skin Disease Line proposal with the need to clarify the following: determine if plans are able to implement the current severe psoriasis guideline, determine evidence on biologics, clarify definition of moderate/severe, consider face as one category (as facial skin disorders can be highly debilitating in terms of occupational and social functioning). There were also question sof the progressive potential of some of these diseases and if prevention is effective, and how to measure functional impairments. Additionally, there was a concern of having biologics listed without a clear evidence review and at potential considerable expense.

**Action**

- 1) Staff to follow up on issues relating to new proposed moderate/severe inflammatory skin disease line, with plans, dermatologists and P&T committee
- 2) Staff to ask consultant dermatologists about proposed guideline for new line Acne Conglobata
- 3) Make no change to coverage of Actinic Keratoses which are currently on line 655

4) Pend decisions on the following recommendations until further discussion occurs:

- a. New Line: Acne conglobata
- b. Delete Line 134 PYODERMA; MODERATE/SEVERE PSORIASIS MEDICAL THERAPY. Pyoderma codes move to cellulitis line 214. Psoriasis divided into mild and moderate/severe disease
- c. Guideline modification: Delete current moderate/severe psoriasis guideline to New moderate/severe inflammatory skin disease guideline as above.
- d. Rename line 545 ~~CYSTIC ACNE~~ ACNE; ROSACEA
- e. Code movement and coding specification : Move Q82.8 Other specified congenital malformations of skin to both higher severe line and 688.

New coding specification

Q82.8 is only included [on the higher line] for the diagnosis of Keratosis follicularis that meets the severity guideline criteria. Other diseases included within Q82.8 are not covered on this line.

5) Create the following lines:

a. **HYDRADENITIS SUPPURATIVA; DISSECTING CELLULITIS OF THE SCALP**

Category 7.

Impact on Healthy Life Years 2

Impact on Pain and Suffering 3

Population effects 0

Vulnerable populations 0

Tertiary prevention 1 (decreases risk of scarring down axilla; abscesses; but surgery end stage decision, cure, but 50% graft entire axilla and get disease around graft)

Effectiveness 1

Need for treatment 1

Net cost 4

SCORE 120 . PUTS ON LINE 550

b. **HEMANGIOMAS, COMPLICATED**  
TREATMENT: MEDICAL THERAPY

Category 7

Impact on Healthy Life Years 5

Impact on Pain and Suffering 2

Population effects 0

Vulnerable populations 0

Tertiary prevention 5

Effectiveness 4

Need for treatment 1

Net cost 3

SCORE 960 . PUTS ON LINE 350

6) Add a new guideline regarding coverage of complicated hemangiomas as shown in Appendix A

7) **Delete the following lines:**

- a. 573 Xerosis, moving single code to 688

- b. 603 Erythema Multiforme Minor, codes moving 530 Erythematous Conditions line

**8) Rescore the following lines:**

- a. 225 TOXIC EPIDERMAL NECROLYSIS AND STAPHYLOCOCCAL SCALDED SKIN SYNDROME; STEVENS-JOHNSON SYNDROME; ERYTHEMA MULTIFORME MAJOR; ECZEMA HERPETICUM

Category 6

Impact on Healthy Life Years 9

Impact on Pain and Suffering 5

Population effects 0

Vulnerable populations 0

Tertiary prevention 2

Effectiveness 3

Need for treatment 1

Net cost 1

SCORE 1920, PUTS around LINE 160

**8) Rename the following lines:**

- a. 530 TOXIC ERYTHEMA, ACNE ROSACEA, DISCOID LUPUS rename TO ERYTHEMATOUS CONDITIONS
- b. 566 FOREIGN BODY GRANULOMA OF MUSCLE, GRANULOMA OF SKIN, AND SUBCUTANEOUS TISSUE
- c. 578 KERATODERMA, ACANTHOSIS NIGRICANS, STRIAE ATROPHICAE, MILD ECZEMATOUS AND OTHER HYPERTROPHIC OR ATROPHIC CONDITIONS OF SKIN

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**Topic: ICD-10 review—Sports Medicine**

**Discussion:** Smits introduced a summary document with suggested changes to the Sports Medicine lines base on the ICD-10 review. Discussion concerned creation of a new line for coverage of Achilles tendonitis, and lateral and medial epicondylitis. Smits pointed out that the experts had given staff articles about the effectiveness of treatment for these conditions on intermediate outcomes such as ability to participate in physical therapy. Dodson was concerned about the considerable cost of covering these conditions, given the treatments which would be available including injections and physical therapy. Gibson pointed out that the evidence concerned only intermediate outcomes, not final outcomes. Pollack pointed out that a large population would be affected. The group felt that the proposed line scoring which included a need for treatment of 0.9 was much too high. It was felt that most patients would only need office advice or over the counter braces. The proposed need for treatment was reduced to 50%, which resulted in a line placement roughly equivalent to the current placement of these conditions. The decision was made to not accept the suggested new line.

The proposed new guideline regarding AC joint sprain treatment was accepted with minimal discussion.

The proposal to change the names of lines 455 and 406 was discussed. The group felt that the proposed wording of “significant injury/impairment” needed to be clarified. The group wanted either more specific wording in the line title or a guideline outlining what was considered significant in terms of injury and impairment.

**Actions:**

- 1) The proposal to create a new line for Achilles tendonitis and lateral and medial epicondylitis was not accepted
- 2) A new guideline for the management of acromioclavicular joint sprain was accepted as noted in Appendix A, with earlier implementation in ICD-9 for October 1, 2012 accepted as shown in Appendix B
- 3) HERC staff will work with sports medicine and orthopedic experts to further define what would be significant injury/impairment for the title of lines 455 and 406

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**Topic: ICD-10 review—Oral maxillofacial surgery**

**Discussion:** Smits introduced a summary document with suggested changes to the oral maxillofacial surgery lines base on the ICD-10 review. The group discussed coverage for odontogenic cysts (K09.0 and K09.1). Olson wondered who often these types of cysts need to be treated. The group determined that these codes could be moved to a covered line if they are uncommon and usually treated; however if they are common and/or only infrequently need treatment, then HERC staff should work with experts to create a guideline for coverage to accompany the movement of these codes to the upper line.

Discussion then moved to moving anodontia to a covered line. Coffman indicated that this diagnosis is on the upper line in CDT coding, and this move is mainly a correction. The decision was made to move this code, effective October 1, 2012 in ICD-9 as well as in the ICD-10 List when released.

**Actions:**

- 1) Change the title of line 627 ~~CYSTS OF ORAL SOFT TISSUES~~  
INCONSEQUENTIAL CYSTS OF ORAL SOFT TISSUES
- 2) HERC staff will work with experts to determine if moving K09.0 (Developmental odontogenic cysts) and K09.1 (Developmental (nonodontogenic) cysts of oral region) requires a guideline
- 3) Move K00.0/520.0 (Anodontia) moves from line 675 DENTAL CONDITIONS WHERE TREATMENT IS CHOSEN PRIMARILY FOR AESTHETIC CONSIDERATIONS to line 477 DENTAL CONDITIONS (EG. MISSING TEETH, PROSTHESIS FAILURE) Treatment: REMOVABLE PROSTHODONTICS (E.G. FULL AND PARTIAL DENTURES, RELINES). The ICD-9 move will be effective October 1, 2012

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**Topic: ICD-10 review--Burns**

**Discussion:** Smits introduced a summary document with suggested changes to the burn lines on the Prioritized List based on ICD-10 review. There was no discussion.

**Actions:**

- 1) Rename line 80 BURN, PARTIAL THICKNESS GREATER THAN 30% OF BODY SURFACE OR WITH VITAL SITE; ~~FULL THICKNESS WITH VITAL SITE, LESS THAN 10% OF BODY SURFACE~~

- 1) Rename line 202 BURN, PARTIAL THICKNESS WITHOUT VITAL SITE REQUIRING GRAFTING, UP TO 40-30% OF BODY SURFACE

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**Topic: ICD-10 Review—Plastic surgery**

**Discussion:** Livingston introduced a summary document outlining the changes suggested during the expert review of the plastic surgery lines as part of the ICD-10 conversion process. The members clarified that the new peripheral nerve injury line only relates to motor nerves. They desired clarification as to what defines “acute” versus chronic. There was some concern raised that this may differ depending on the specialty.

The suggested rescoring for more and less severe skin ulcers was reviewed, given that the new scores would have been so close, and the lines only 2 apart, the decision was made not to split these two lines.

**Actions:**

- 1) Staff to contact consulting plastic surgeon to confirm definition of “acute nerve injury” and present this at the following meeting
- 2) Make no change to the 410 Chronic Ulcer of Skin line
- 3) Remove the following codes from Line 358 Hyperbaric oxygen
  - a. L92.1 Necrobiosis lipoidica, not elsewhere classified 358,652
  - b. L94.2 Calcinosis cutis 358,652
- 4) Rename Line 315 ~~CRUSH CLOSED INJURY OF DIGITS~~

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**Topic: ICD-10 Review—Neurology**

**Discussion:** Livingston introduced a summary document outlining the changes suggested during the expert review of the neurology lines as part of the ICD-10 conversion process. The proposed guideline note about immune modifying therapies for multiple sclerosis was discussed. The wording was clarified to ensure that treatment of those with an unknown diagnosis is appropriate, unless the diagnosis changes to primary progressive or secondary progressive, in which case there is no further benefit from the therapies.

**Actions:**

- 1) Adopt the following new Guideline Note was created restricting immune modifying therapies in multiple sclerosis for implementation October 1, 2012 as shown in Appendix B
- 2) Consider the following topics for future coverage guidance:
  - a. Management of migraine headaches
  - b. Carotid endarterectomies, indications, and in comparison with medical management
- 3) Rename Line 441 PERIPHERAL NERVE ENTRAPMENT; PALMAR FASCIAL FIBROMATOSIS

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**Topic: Pulmonary valve repair**

**Discussion:** Smits introduced a summary document regarding coverage of acquired pulmonary valve disease repair. There was minimal discussion.

**Actions:**

- 1) Add 424.3 (pulmonary valve disorders) to line 274 and keep on line 363 for medical treatments
- 2) Rename line 274 DISEASES OF MITRAL, AND TRICUSPID, AND PULMONARY VALVES
- 3) Add pulmonary valve repair CPT codes to line 274
  - a. 33470 Valvotomy, pulmonary valve, closed heart; transventricular
  - b. 33471 Valvotomy, pulmonary valve, closed heart; via pulmonary artery
  - c. 33472 Valvotomy, pulmonary valve, open heart; with inflow occlusion
  - d. 33474 Valvotomy, pulmonary valve, open heart; with cardiopulmonary bypass
  - e. 33475 Replacement, pulmonary valve
  - f. 33476 Right ventricular resection for infundibular stenosis, with or without commissurotomy
  - g. 33478 Outflow tract augmentation (gusset), with or without commissurotomy or infundibular resection
- 4) Remove 32660 and 33496 from line 363 DISEASES OF ENDOCARDIUM

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**Topic: Nasal endoscopy for acute sinusitis**

**Discussion:** Smits introduced a summary document outlining proposed changes to the coverage for nasal endoscopy for acute sinusitis. The group agreed that there was no evidence for adding nasal endoscopy to the acute sinusitis line and agreed with the suggestion that the 4 CPT codes for these types of procedures which currently appear on this line be removed. There was then discussion about whether nasal endoscopy should be covered for chronic sinusitis. Dr. Paul Flint, the ENT expert who came to discuss the ENT ICD-10 changes, was asked about this question. His response was that endoscopic surgery was effective for the treatment of chronic sinusitis. He reported that studies comparing medical management of chronic sinusitis with surgical therapy found that surgical patients had better outcomes. He agreed with the suggestion to not add these endoscopy codes to the acute sinusitis line.

**Actions:**

- 1) Advise DMAP to remove 31237 from the Diagnostic File
- 2) Remove 31238 from line 654
- 3) Remove 31256 from line 262
- 4) Remove 31276 from lines 391 and 548 and advise DMAP to remove from the Diagnostic File
- 5) Remove 31295 from line 391
- 6) Remove 31296 from line 391
- 7) Remove 31297 from line 391

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**Topic: Vascular bone grafting for avascular necrosis of the hip**

**Discussion:** Smits introduced a summary document outlining a new evidence review on the effectiveness of vascular bone grafting (VBG) for avascular necrosis of the hip (AVN). An expert, Dr. Mirarchi from OHSU Orthopedics, was available to answer subcommittee questions via phone.

The first question raised was whether vascular bone grafting should continue to be on lines with advanced forms of AVN. The evidence review found that more advanced forms has worse outcomes than less advanced forms. Dr. Mirarchi felt that this procedure was needed in some advanced cases of AVN. Specifically, he felt that VBG was a reasonable surgical options for patients with femoral neck fracture when there are no other surgical repair options (i.e. the patient was too young to be a good total hip replacement candidate). By young, he agreed with the age restriction of less than 50 years, as well as the other restrictions outlined in the proposed guideline in the packet (AVN not related to steroid or alcohol use as these increase the probability of thrombosis, life expectance of 20-25 years). He specified that VBG is useful when there is a requirement to have some type of structural support for the hip as well as improved blood flow. He noted that he personally stopped doing VBG due to concerns about lack of benefit to patients with this procedure. He pointed out that this surgery is very highly technically demanding surgery, takes about 8 hours, and that better outcomes are strongly correlated with high volume. He also has concerns about the high complication rate with this surgery, particularly at the harvest site. These complications include nerve injuries of foot, leg and ankle weakness, hematomas. He noted that the surgery takes muscle and bone from harvest site. He reported a 25% complication rate (major and minor) per literature.

The proposal was made to include the procedure on the more serious AVN condition lines (hip fracture, etc.) with a guideline specifying that the surgery was only indicated for young patients with need for structural support of the femoral neck, and that two physicians need to provide recommendation for the surgery.

Mr. Michael Adkins then asked Dr. Mirarchi what he would recommend for a patient with his particular situation. The subcommittee stopped this line of questioning as being inappropriate—experts cannot given medical advice to patients as part of their VBBS testimony. Mr. Adkins also gave public testimony regarding his research that found that most major medical plans (BCBS, Aetna, Cigna, etc.) cover VBG as medically necessary, and most state Medicaid plans cover without a guideline. He reported that he spoke with a surgeon at USC who had agreed to see him if this procedure is added for treatment for AVN (currently no surgeons in Oregon or Washington were found who provide this surgery). Mr. Adkins also reported that he spoe with Dr. Urbaniak at Duke, who felt that the proposed guideline for VBG restricted surgical judgment unnessesarily. He argued that VBG is standard of care for stage 2/3 AVN in most parts of the country and argued that guidelines are not good medicine.

Gibson made a final comment that the HERC's job was to create coverage policies within the context of limited finanacial resources.

The final decision was to leave VBG on the current lines with a guideline restricting use to young patients with femoral neck fractures needing structural support. VBG will not be added to line 384.

**Actions:**

- 1) Do not add vascular bone grafting (CPT 27170) to line 384

- 2) Keep 27170 on lines 297, 467, and 531 with a guideline. HERC staff will work with Dr. Mirarchi and other orthopedic experts to craft this guideline and will bring back to a future VBBS meeting.

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**Topic: Paraphilia line placement**

**Discussion:** Smits introduced a summary document discussing follow up issues for the creation of two lines, Paraphilias and Gender Dysphoria, from the current Paraphilias line.

Tyack raised concerns about the possible harms associated with hormone treatment of adolescents. The previous discussion in March had approved adding puberty suppressing hormone medications to the Gender Dysphoria Line. Since that discussion, Tyack has spoken with a pediatric endocrinologist, who raised concerns about this type of treatment on the developing brain. Tyack requested testimony from a developmental neuropsychologist prior to finalizing the decision to add such puberty suppressing medications to this line. Gibson agreed that if significant adverse events could result from treatment, then this issue needs to be fully addressed before a final decision is made. Pollack felt that there was only a small group of providers who worked with these puberty suppressing medications and that these providers were fully aware of the risks and that these medications were used judiciously. Livingston noted that the MED project has treatment of gender identity disorder on its list of possible upcoming reviews, so more information may be forthcoming soon. The group felt that being conservative and only including the current treatments on the line (mainly psychotherapy) for the initial line split was the right thing to do. Further research could be done in to puberty suppressing medications. HERC staff will communicate this decision to the advocacy groups and keep them in the loop.

The group then discussed the new paraphilias line. The major diagnosis on this line which drives need for treatment is pedophilia. Dodson felt that perhaps this diagnosis should be removed from the line and made its own line. Pollack replied that he had considered this when advising HERC staff about the new line, and felt that it was appropriate to keep on the paraphilias line. Gibson was concerned that pedophilia would not be treated under OHP as the new paraphilias line scores below the current funding line. Smits noted that the current paraphilias line is unfunded, so this would not represent a change. Pollack noted that pedophilia was a reportable offense, and most treatment was court mandated, usually through the justice system.

The final decision was to move forward with splitting the current paraphilia line into gender dysphoria and paraphilia, with only the current treatments (psychotherapy) included on the two new lines. The two additional diagnoses proposed for the upper line were approved. The line scoring of the paraphilias line was approved.

**Actions:**

- 1) Split the current Paraphilias line into two new lines, Gender Dysphoria and Paraphilias, as noted in the March 2012 VBBS minutes
- 2) Move 302.0 (Ego-dystonic sexual orientation) and 302.50 (Trans-sexualism with unspecified sexual history) to the new Gender Dysphoria line

- 3) Rank the new Paraphilias line to approximately line 530
- 4) Add only psychotherapy to both new lines. HERC staff will work with experts and advocates to determine whether puberty suppression or other hormone therapy should be added to the Gender Dysphoria line.

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**Topic: Neoplasm of uncertain behavior**

**Discussion:** Livingston introduced a summary document outlining suggested changes to the placement of the diagnosis “neoplasm of uncertain nature.” Smits pointed out that this is now, per CMS rules, a pathologic diagnosis. The diagnostic work up of lesions would be covered under the diagnosis of “neoplasm of unspecified nature.” These were felt to be transitory diagnoses, and so are appropriate to be placed in the Diagnostic File.

**Actions:**

- 1) 272 family of codes will be placed on relevant lines as shown in the packet document

---

**Topic: Cardiac MRI for thoracic aneurysm**

**Discussion:** Smits introduced a summary document with recommendations to add cardiac MRI for evaluation of thoracic aneurysms. There was minimal discussion.

**Actions:**

- 1) Add cardiac MRI (CPT 75561-5) to line 349 NON-DISSECTING ANEURYSM WITHOUT RUPTURE

---

**Topic: Earlier implementation of guideline changes from the ICD-10 review**

**Discussion:** Smits introduced a summary document outlining guidelines which were modified as part of the ICD-10 review process which are appropriate for earlier implementation. The three guidelines in the initial document were accepted for earlier implementation with minimal discussion.

A new guideline for treatment of benign neoplasm of urinary organs was reviewed for earlier placement. The proposed guideline was modified to more clearly specify then diagnoses are covered on line 228 and when on line 538.

The proposed wording for the VAD guideline was accepted with no discussion.

**Actions:**

- 1) Changes to the Heart-Kidney Transplant guideline, Frenulectomy/Frenulotomy guideline, and Bariatric Surgery guideline were accepted for implementation October 1, 2012 as shown in Appendix B
- 2) A new guideline regarding treatment of benign neoplasms of the urinary tract was accepted with wording for both ICD-9 (to be implemented October 1, 2012) and ICD-10 (to be implemented October 1, 2014 tentatively)
- 3) A modified guideline for ventricular assist devices was accepted for implementation October 1, 2012 as shown in Appendix B

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**Topic: ESA guideline modifications**

**Discussion:** Livingston introduced a summary document outlining suggested changes to the ESA guideline based on new safety concerns. Amgen submitted a request to have the language on the upper limit for hemoglobin for dosing in chronic renal patients changed. The group felt that clear language would be important for implementation. Olson pointed out that the label information was not necessarily meant for clinical practice. The guideline was approved with specific direction not to exceed hemoglobin limits.

**Motion to approve – unanimous.**

**Actions:**

- 1) Modify guideline for ESAs approved as shown in Appendix B

---

**Topic: ICD-10 Otolaryngology**

**Discussion:** Livingston introduced a summary document outlining suggested changes to the otolaryngology lines as part of the ICD-10 review process. Dr. Paul Flint was present to answer questions about the otolaryngology recommendations. Modifications were made to the guideline note for clarity. Regarding Line 498 Chronic Sinusitis, it was discussed that complications occur in about 3% with frontal and sphenoid sinusitis carrying the highest risk, but that the mortality rate is well below 1%. Effectiveness is about 50%. The decision was made to change healthy life years score to 4.

**Actions:**

- 1) **CREATE NEW LINES**

**LARYNGEAL STENOSIS OR PARALYSIS WITH AIRWAY COMPLICATIONS**

**Scoring**

Category 6  
Impact on healthy life years 7  
Impact on pain and suffering 4  
Population 0  
Impact on vulnerable populations 2  
Tertiary Prevention – 3  
Need for service – 2  
Effectiveness – 4  
Score 2560

**New Line 80**

- 2) A new guideline was created for the new laryngeal stenosis line as shown in Appendix A
- 3) Modify scoring of Chronic Sinusitis Line 498
  - a. Change Health Life Years to 4, which changes the score to 240, placing it around Line 495

---

**Topic: Straightforward items**

**Discussion:** Smits introduced a summary document outlining suggested straightforward changes to the List, as well as changes to the placement of partial and total colectomy codes. There was no discussion.

**Actions:**

- 1) Add 92081-3 to line 435
- 2) Add 21076 to line 325
- 3) Add 67121 to line 448
- 4) Add 27030 to line 308
- 5) Add 69711 to line 308
- 6) Add 36147, 37207, and 75791 to line 308
- 7) Add 43269 to lines 308 and 448
- 8) Add 57295 to line 448
- 9) Add 26432 to line 550
- 10) Add 20661 to line 448
- 11) Add 37224, 37228, and 49429 to line 448
- 12) Add 69424 to line 308
- 13) Add 65920 to line 448
- 14) Add 63707 and 63709 to line 308 and 448
- 15) Remove 36822 from lines 14, 98, 111, 154, 248, and 310. Advise DMAP to place 36822 on the Ancillary File.
- 16) Add 27886 to lines 308 and 448
- 17) Add 25909 to line 308 and 448
- 18) Add 21501 to line 308
- 19) Add 32120 to line 308
- 20) Add 15200-1 to line 197
- 21) Affirm the placement of 38542 on line 221
- 22) Add 51525 to line 351
- 23) Add 29425 to lines 467, 536 and 565
- 24) Add 28300 to line 550
- 25) Add 11982 to line 308
- 26) Add 77418 and 77421 to line 218
- 27) Add 97530 to line 441
- 28) Add 34451 to line 303
- 29) Add 45905 and 45910 to line 111
- 30) Add 48545 to line 88
- 31) Add 47350 and 47360 to line 88
- 32) Add 40830 and 40831 to line 216
- 33) Add 35476 to line 303
- 34) Add 27430 to line 318
- 35) Add 25645 to line 143
- 36) Add 62010 to line 101. Remove 62010 from line 273
- 37) Add 44204 to lines 78, 111, 163, 339, 503
- 38) Add 44205 to lines 78, 111, 163, 339, 503 and 667. Remove 44205 from line 666
- 39) Remove 44213 from line 593. Add 44213 to line 667

---

**Public Comment**

No public testimony was received except as noted in topic sections above.

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**Issues for next meeting:**

- 1) ICD-10 review for Infectious Disease, Ophthalmology, Obstetrics and Gynecology

- 2) Follow up issues for ICD-10 topics
  - 3) Unspecified disorders of the nervous system
  - 4) Amputation for burns resulting in deep tissue necrosis
  - 5) Percutaneous testing for drug allergies
- 

**Next meeting:** May 10, 2012 at Wilsonville Training Center in Wilsonville, OR.

DRAFT

## Appendix A

### Guideline Changes as Part of the ICD-10 and/or Biennial Review

Note: these take effect with the next Biennial Review List (tentatively October 1, 2014)

## New Guidelines

### **GUIDELINE NOTE XXX MANAGEMENT OF ACROMIOCLAVICULAR JOINT SPRAIN**

*Line 443, 638*

Sprain of acromioclavicular joint (ICD-10 S43.50-S43.52, and S43.60-S43.62) are only included on line 443 for Grade 4-6 sprains. Surgical management of these injuries is covered only after a trial of conservative therapy. Grade 1-3 acromioclavicular joint sprains are included only on line 638.

### **GUIDELINE NOTE XXX HEMANGIOMAS, COMPLICATED**

**New Line**

Hemangiomas are covered on this line when they are ulcerated, infected, recurrently hemorrhaging, or function-threatening (e.g. eyelid hemangioma).

### **GUIDELINE NOTE XXX TREATMENT OF BENIGN NEOPLASM OF URINARY ORGANS**

*Line 228, 538*

Treatment of benign urinary system tumors (ICD-9 223.0, ICD-10 D30.00-D30.02) are included on line 228 with evidence of bleeding or urinary obstruction. Treatment of 1) oncocytoma which is >5 cm in size or symptomatic and 2) angiomyolipoma (AML) which is >5cm in women of child bearing age or in symptomatic men or women is covered. Otherwise, these diagnoses are included on line 538.

### **GUIDELINE NOTE XXX LARYNGEAL STENOSIS OR PARALYSIS WITH AIRWAY COMPLICATIONS**

**New Line**

Laryngeal paralysis is covered on this line if associated with recurrent aspiration pneumonia (unilateral or bilateral) or airway obstruction (bilateral). Hoarseness is on line 543. Laryngeal stenosis is included on this line only if it causes airway obstruction.

## Appendix B

### Guideline Changes to be Implemented October 1, 2012

#### New Guidelines

##### **GUIDELINE NOTE XXX MANAGEMENT OF ACROMIOCLAVICULAR JOINT SPRAIN**

*Line 443, 638*

Sprain of acromioclavicular joint (ICD-10 840.0) is only included on line 443 for Grade 4-6 sprains. Surgical management of these injuries is covered only after a trial of conservative therapy. Grade 1-3 acromioclavicular joint sprains are included only on line 638.

##### **GUIDELINE NOTE XXX IMMUNE MODIFYING THERAPIES FOR MULTIPLE SCLEROSIS**

*Line 268*

Once a diagnosis of primary progressive or secondary progressive multiple sclerosis is reached, immune modifying therapies are no longer covered.

##### **GUIDELINE NOTE XXX TREATMENT OF BENIGN NEOPLASM OF URINARY ORGANS**

*Line 228, 538*

Treatment of benign urinary system tumors (ICD-9 223.0, ICD-10 D30.00-D30.02) are included on line 228 with evidence of bleeding or urinary obstruction. Treatment of 1) oncocytoma which is >5 cm in size or symptomatic and 2) angiomyolipoma (AML) which is >5cm in women of child bearing age or in symptomatic men or women is covered. Otherwise, these diagnoses are included on line 538.

#### Modified Guidelines

##### **GUIDELINE NOTE 70, HEART-KIDNEY TRANSPLANTS**

*Line 279*

Patients under consideration for heart/kidney transplant must qualify for each individual type of transplant under current DMAP administrative rules and transplant center criteria with the exception of any exclusions due to heart and/or kidney disease. Qualifying renal disease is limited to Stage V or VI.

##### **GUIDELINE NOTE 48, FRENULECTOMY/FRENULOTOMY**

*Line 373*

Frenulectomy/frenulotomy (D7960) is included on this line for the following situations:

- ~~1. In the presence of ankyloglossia~~
- ~~2.1.~~ When deemed to cause gingival recession
- ~~3. 2.~~ When deemed to cause movement of the gingival margin when frenum is placed under tension.
- ~~4.3.~~ Maxillary labial frenulectomy not covered until age 12 and above

## **GUIDELINE NOTE 8, BARIATRIC SURGERY**

*Lines 33,607*

Bariatric surgery for obesity is included on Line 33 TYPE II DIABETES MELLITUS, and Line 607 OBESITY under the following criteria:

- A) Age  $\geq$  18
- A) For inclusion on Line 33: BMI  $\geq$  35 with co-morbid type II diabetes. For inclusion on Line 607: BMI  $\geq$  35 with at least one significant co-morbidity other than type II diabetes (e.g., obstructive sleep apnea, hyperlipidemia, hypertension) or BMI  $\geq$  40 without a significant co-morbidity.
- B) No prior history of Roux-en-Y gastric bypass or laparoscopic adjustable gastric banding, unless they resulted in failure due to complications of the original surgery.
- C) Participate in the following four evaluations and meet criteria as described.
  - 1) Psychosocial evaluation: (Conducted by a licensed mental health professional)
    - a) Evaluation to assess potential compliance with post-operative requirements.
    - b) Must remain free of abuse of or dependence on alcohol during the six-month period immediately preceding surgery. No current use of nicotine or illicit drugs and must remain abstinent from their use during the six-month observation period. Testing will, at a minimum, be conducted within one month of the surgery to confirm abstinence from nicotine and illicit drugs.
    - c) No mental or behavioral disorder that may interfere with postoperative outcomes<sup>1</sup>.
    - d) Patient with previous psychiatric illness must be stable for at least 6 months.
  - 2) Medical evaluation: (Conducted by OHP primary care provider)
    - a) Pre-operative physical condition and mortality risk assessed with patient found to be an appropriate candidate.
    - b) Optimize medical control of diabetes, hypertension, or other co-morbid conditions.
    - c) Female patient not currently pregnant with no plans for pregnancy for at least 2 years post-surgery. Contraception methods reviewed with patient agreement to use effective contraception through 2nd year post-surgery.
  - 3) Surgical evaluation: (Conducted by a licensed bariatric surgeon associated with program<sup>2</sup>)
    - a) Patient found to be an appropriate candidate for surgery at initial evaluation and throughout period leading to surgery while continuously enrolled on OHP.
    - b) Received counseling by a credentialed expert on the team regarding the risks and benefits of the procedure<sup>3</sup> and understands the many potential complications of the surgery (including death) and the realistic expectations of post-surgical outcomes.
  - 4) Dietician evaluation: (Conducted by licensed dietician)
    - a) Evaluation of adequacy of prior dietary efforts to lose weight. If no or inadequate prior dietary effort to lose weight, must undergo six-month medically supervised weight reduction program.
    - b) Counseling in dietary lifestyle changes
- D) Participate in additional evaluations:

- 1) Post-surgical attention to lifestyle, an exercise program and dietary changes and understands the need for post-surgical follow-up with all applicable professionals (e.g. nutritionist, psychologist/psychiatrist, exercise physiologist or physical therapist, support group participation, regularly scheduled physician follow-up visits).

<sup>1</sup> Many patients (>50%) have depression as a co-morbid diagnosis that, if treated, would not preclude their participation in the bariatric surgery program.

<sup>2</sup> All surgical services must be provided by a program with current certification by the American College of Surgeons (ACS) or the ~~Surgical Review Corporation (SRC)~~, American Society for Metabolic and Bariatric Surgery (ASMBS) or in active pursuit of such certification with all of the following: a dedicated, comprehensive, multidisciplinary, pathway-directed bariatric program in place; hospital to have performed bariatrics > 1 year and > 25 cases the previous 12 months; trained and credentialed bariatric surgeon performing at least 50 cases in past 24 months; qualified bariatric call coverage 24/7/365; appropriate bariatric-grade equipment in outpatient and inpatient facilities; appropriate medical specialty services to complement surgeons' care for patients; and quality improvement program with prospective documentation of surgical outcomes. If the program is still pursuing ACS or ~~SR~~ ASMBS-certification, it must also restrict care to lower-risk OHP patients including: age < 65 years; BMI < 70; no major elective revisional surgery; and, no extreme medical comorbidities (such as wheel-chair bound, severe cardiopulmonary compromise, or other excessive risk). All programs must agree to yearly submission of outcomes data to Division of Medicaid Assistance Programs (DMAP).

<sup>3</sup> Only Roux-en-Y gastric bypass, laparoscopic adjustable gastric banding and sleeve gastrectomy are approved for inclusion.

<sup>4</sup> The patient must meet criteria #1, #2, and #3, and be referred by the OHP primary care provider as a medically appropriate candidate, to be approved for evaluation at a qualified bariatric surgery program.

## **GUIDELINE NOTE 18, VENTRICULAR ASSIST DEVICES**

*Lines 108,279*

Ventricular assist devices are covered only in the following circumstances:

1. as a bridge to cardiac transplant;
2. as treatment for pulmonary hypertension when pulmonary hypertension is the only contraindication to cardiac transplant and the anticipated outcome is cardiac transplant;
- or,
3. as a bridge to recovery.

Ventricular assist devices are not covered for destination therapy.

Ventricular assist devices are covered for cardiomyopathy only when the intention is bridge to cardiac transplant.

Long-term VADs are covered for indications 1 and 2. Long-term VADs are defined as a VAD that is implanted in a patient with the intent for the patient to be supported for greater than a month with the potential for discharge from the hospital with the device. Temporary or short term VADs are covered for indications 1 and 3. Short-term VADs are defined as a VAD that is implanted in a patient with the intent for the patient to be supported for days or weeks with no potential for discharge from the hospital with the device.

## **GUIDELINE NOTE 7, ERYTHROPOIESIS-STIMULATING AGENT (ESA) GUIDELINE**

*Lines 33,66,79,102,103,105,123-*

*125,131,138,144,159,165,166,168,170,181,197,198,206-*

*208,218,220,221,228,229,231,235,243,249,252,275-278,280,287,292,310-*

*312,314,320,339-341,352,356,366,459,622*

A) Indicated for anemia (Hgb < 10gm/dl or Hct < 30%) induced by cancer chemotherapy given within the previous 8 weeks or in the setting of myelodysplasia.

1) Reassessment should be made after 8 weeks of treatment. If no response, treatment should be discontinued. If response is demonstrated, ESAs should be discontinued once the hemoglobin level reaches 10gm/dl, unless a lower hemoglobin level is sufficient to avoid the need for red blood cell (RBC) blood transfusion.

B) Indicated for anemia (Hgb < 10gm/dl or HCT < 30%) associated with HIV/AIDS.

1) An endogenous erythropoietin level < 500 IU/L is required for treatment, and patient may not be receiving zidovudine (AZT) > 4200 mg/week.

2) Reassessment should be made after 8 weeks. If no response, treatment should be discontinued. If response is demonstrated, ~~ESAs~~ should be titrated to maintain a level between 10 and 12, the lowest ESA dose sufficient to reduce the need for RBC transfusions should be used, and the Hgb should not exceed 11gm/dl.

C) Indicated for anemia (Hgb < 10 gm/dl or HCT <30%) associated with chronic renal failure, with or without dialysis.

1) Reassessment should be made after 8 weeks. If no response, treatment should be discontinued. If response is demonstrated, ~~ESAs should be titrated to maintain a level between 11 and 12.~~ the lowest ESA dose sufficient to reduce the need for RBC transfusions should be used, and the Hgb should not exceed 11gm/dl. In those not on dialysis, the Hgb level should not exceed 10gm/dl.

## **Section 2**

### **ICD-10 Mapping**

# Overview of Recommendations for Converting Lines to ICD-10-CM

## INFECTIOUS DISEASE

*Specialty consultants:* Dr. Don Girod; Dr. James Leggett

### CREATE NEW LINES

- 1) Line XXX NON-PULMONARY TUBERCULOSIS  
Treatment: Medical therapy  
ICD-10: A17.83, A17.9, A18.01-A19.9  
CPT: 98966-98969,99051,99060,99070,99078,99201-99360,99366,99374,99375,99379-99444,99468-99480,99605-99607

This line contains non-pulmonary TB diagnoses, and should be a lower priority than line 55 (renamed Pulmonary TB) due to its lower public health score. ICD-10 codes for this line all originated on line 73 DISSEMINATED INFECTIONS WITH LOCALIZED SITES

### Scoring

Category 6

HLY 6

Pain and suffering 2

Population effects 0

Vulnerable population 1

Tertiary prevention 3

Effectiveness 4

Need for treatment 1

Cost 2

Score: 1920

Approx line: 160

### COMBINE MULTIPLE LINES

- 1) Delete line 203 TETANUS NEONATORUM and move the only ICD-10 code on line 203 (A33 Tetanus neonatorum) to line 251 TETANUS
- 2) Delete line 211 ERYSIPELAS. The only ICD-10 code on this line (A46 Erysipelas) should be moved to line 214 SUPERFICIAL ABSCESSSES AND CELLULITIS
- 3) Delete line 244 LEPTOSPIROSIS. Place all diagnoses on line 215 ZOONOTIC BACTERIAL DISEASES except A27.81 (Aseptic meningitis in leptospirosis) which should be placed on line 119 SUBACUTE MENINGITIS (EG. TUBERCULOSIS, CRYPTOCOCCOSIS).
- 4) Delete line 387 LYME DISEASE AND OTHER ARTHROPOD BORNE DISEASES. Move all diagnoses to line 284 RICKETTSIAL AND OTHER ARTHROPOD-BORNE DISEASES except B64 (Unspecified protozoal disease) which should move to line 683 INFECTIOUS DISEASES WITH NO OR MINIMALLY EFFECTIVE TREATMENTS OR NO TREATMENT NECESSARY.
- 5) Delete line 354 COCCIDIOIDOMYCOSIS, HISTOPLASMOSIS, BLASTOMYCOTIC INFECTION, OPPORTUNISTIC AND OTHER MYCOSES and move diagnoses into Line 246 UNSPECIFIED DISEASES DUE TO MYCOBACTERIA, ACTINOMYCOTIC INFECTIONS, AND TOXOPLASMOSIS. Change name of line 246 to UNSPECIFIED DISEASES DUE TO MYCOBACTERIA, ACTINOMYCOTIC INFECTIONS, AND TOXOPLASMOSIS. ~~UNSPECIFIED DISEASES DUE TO MYCOBACTERIA, ACTINOMYCOTIC INFECTIONS, AND TOXOPLASMOSIS~~ MYCOBACTERIA, FUNGAL INFECTIONS, TOXOPLASMOSIS, AND OTHER OPPORTUNISTIC INFECTIONS

# Overview of Recommendations for Converting Lines to ICD-10-CM

## DELETE LINES

- 1) Delete line 72 CANCRUM ORIS. The only ICD-10 code on this line (A69.0 Necrotizing ulcerative stomatitis) is also on line 395 STREPTOCOCCAL SORE THROAT AND SCARLET FEVER; VINCENT'S DISEASE; ULCER OF TONSIL; UNILATERAL HYPERTROPHY OF TONSIL
- 2) Delete line 120 PNEUMOCYSTIS CARINII PNEUMONIA. The only ICD-10 code on this line (B59 Pneumocystosis) is also on line 147 OPPORTUNISTIC INFECTIONS IN IMMUNOCOMPROMISED HOSTS; CANDIDIASIS OF STOMA; PERSONS RECEIVING CONTINUOUS ANTIBIOTIC THERAPY.
- 3) Delete line 227 CANDIDIASIS OF LUNG, DISSEMINATED CANDIDIASIS, CANDIDAL ENDOCARDITIS AND MENINGITIS. Diagnoses all moved to more appropriate lines.
- 4) Delete Line 289 ACUTE POLIOMYELITIS. No effective treatment for acute polio exists—treatment is supportive only. Also, no cases of acute polio seen in the US in several decades. Move all diagnoses to line 683 INFECTIOUS DISEASES WITH NO OR MINIMALLY EFFECTIVE TREATMENTS OR NO TREATMENT NECESSARY. See guideline section below—allow treatment if symptoms are severe enough to warrant hospitalization.
- 5) Delete Line 300 ARTHROPOD-BORNE VIRAL DISEASES. No effective treatment—care is supportive only. Deal with neurologic sequelae (if any). Put all diagnoses on line 683 INFECTIOUS DISEASES WITH NO OR MINIMALLY EFFECTIVE TREATMENTS OR NO TREATMENT NECESSARY. Modify hospitalization guideline to allow for treatment of acute disease if severe enough (see Guidelines section below).

## RESCORE LINES

- 1) Line 73 Late syphilis. Rename Line 73: ~~DISSEMINATED INFECTIONS WITH LOCALIZED SITES~~ LATE SYPHILLIS
  - a. Note: all non-syphilis related codes moved to other lines

### Scoring

Category 6

HLY 6

Pain and suffering 3

Population effects 0

Vulnerable population 1

Tertiary prevention 3

Effectiveness 1

Need for treatment 1

Cost 3

Score: 520

Approx line: 415

- 2) Line 130: AMEBIASIS Suggested that this line should be prioritized in the 240's

### Scoring

Category 6

HLY 5

Pain and suffering 1

Population effects 0

Vulnerable population 0

Tertiary prevention 3

Effectiveness 5

Need for treatment 1

Cost 3

Score:1800

Approx line: 185

# Overview of Recommendations for Converting Lines to ICD-10-CM

## GUIDELINES

### GUIDELINE NOTE 61, HOSPITALIZATION FOR ACUTE VIRAL INFECTIONS

*Lines 556,571,575,643, XXX, XXX OR 683 [new lines for acute polio and arthropod-borne viral disease lines]*

Most acute viral infections are self-limited (e.g. colds, infectious mononucleosis, gastroenteritis). However, some viral infections such as viral pneumonia, aseptic meningitis, or severe gastroenteritis may require hospitalization to treat the complications of the primary disease.

Accepted coding practices insist that the underlying condition in these cases be the principle diagnosis. For example, complicated viral pneumonia requiring respiratory support with a ventilator would have a principle diagnosis of viral pneumonia and a secondary diagnosis of respiratory failure. Since the ICD-9-CM code for viral pneumonia has historically appeared only on a non-funded line, treatment has not been reimbursable regardless of the severity of the disease. In contrast, the code for viral gastroenteritis appears on Line 296 and any necessary outpatient or inpatient services would be covered.

Reimbursement for the treatment of certain conditions appearing low on the Prioritized List should be provided in severe cases of the diseases identified on the following four lines.

Line: 575

Condition: OTHER NONINFECTIOUS GASTROENTERITIS AND COLITIS

Treatment: MEDICAL THERAPY

Treatment of non-infectious gastroenteritis of significant severity that is associated with dehydration should be a covered service if the case fulfills the requirement of hospital admission guidelines using an index of severity of illness.

Line: 556

Condition: VIRAL, SELF-LIMITING ENCEPHALITIS, MYELITIS AND  
ENCEPHALOMYELITIS

Treatment: MEDICAL THERAPY

Treatment of viral encephalitis, myelitis and encephalomyelitis of significant severity that is associated with either obtundation or dehydration should be a covered service if the case fulfills the requirement of hospital admission guidelines using an index of severity of illness.

Line: 571

Condition: ASEPTIC MENINGITIS

Treatment: MEDICAL THERAPY

Treatment of aseptic meningitis of significant severity that is associated with either obtundation or dehydration should be a covered service if the case fulfills the requirement of hospital admission guidelines using an index of severity of illness.

Line: 643

Condition: ACUTE UPPER RESPIRATORY INFECTIONS AND COMMON COLD

Treatment: MEDICAL THERAPY

Treatment of viral pneumonia of significant severity that is associated with either respiratory failure or dehydration should be a covered service if the case fulfills the requirement of hospital admission guidelines using an index of severity of illness.

Line 683

Condition: INFECTIOUS DISEASES WITH NO OR MINIMALLY EFFECTIVE  
TREATMENTS OR NO TREATMENT NECESSARY

# Overview of Recommendations for Converting Lines to ICD-10-CM

Treatment: MEDICAL THERAPY

Treatment of acute infectious disease that is associated with respiratory failure, obtundation, or dehydration should be a covered service if the case fulfills the requirement of hospital admission guidelines using an index of severity of illness.

## RENAME LINES

- 3) Rename Line 55: PULMONARY TUBERCULOSIS
- 4) Rename Line 135 ~~MALARIA AND RELAPSING FEVER~~ CHAGAS' DISEASE AND TRYPANOSOMIASIS
- 5) Rename line 396 ~~GIARDIASIS, INTESTINAL HELMINTHIASIS~~ INTESTINAL PARASITES

## CODE PLACEMENT

- 1) Many codes which specified a particular type of infection (i.e. endocarditis, myocarditis, etc.) moved from the ID line to the disease line appropriate to that diagnosis. For example, “meningococcal myocarditis” moved from line 75 ACUTE BACTERIAL MENINGITIS to line 90 MYOCARDITIS (NONVIRAL), PERICARDITIS (NONVIRAL) AND ENDOCARDITIS
- 2) Line 147 OPPORTUNISTIC INFECTIONS IN IMMUNOCOMPROMISED HOSTS; CANDIDIASIS OF STOMA; PERSONS RECEIVING CONTINUOUS ANTIBIOTIC THERAPY had the majority of its diagnoses moved to other, more appropriate lines. Diagnoses moved from a variety of lines into this line.

# Overview of Recommendations for Converting Lines to ICD-10-CM Cardiology

*Specialty consultants:* Drs. Ed Toggart and Len Christie

## CREATE NEW LINES

None

## COMBINE MULTIPLE LINES

None

## DELETE LINES

- 1) Line 302 CHRONIC RHEUMATIC PERICARDITIS, RHEUMATIC MYOCARDITIS
  - a. All codes moved to other, more appropriate lines
- 2) Line 363 DISEASES OF ENDOCARDIUM
  - a. All codes moved to other lines or kept on other lines where they already appeared
- 3) Line 367 IDIOPATHIC OR VIRAL MYOCARDITIS AND PERICARDITIS
  - a. All codes moved to line 90 MYOCARDITIS (~~NONVIRAL~~), PERICARDITIS (~~NONVIRAL~~) AND ENDOCARDITIS and to line 279 (Cardiac transplant line) if appropriate
  - b. Outcomes and treatments do not differ based on whether the etiology of the myocarditis or pericarditis is viral or of other etiology

## RESCORE LINES

None

## GUIDELINES

None

## RENAME LINES

- 1) Line 90 MYOCARDITIS (~~NONVIRAL~~), PERICARDITIS (~~NONVIRAL~~) AND ENDOCARDITIS
  - a. Viral and non-viral etiologies grouped together
- 2) Line 109 CARDIOMYOPATHY, ~~HYPERTROPHIC MUSCLE~~
- 3) Line 274 DISEASES OF MITRAL, ~~AND TRICUSPID~~, AND PULMONARY VALVES
  - a. Note: this was done for the October 1, 2012 List at the April 2012 VbBS meeting
  - b. A series of pulmonary valve disorder codes (I37.0-I37.9) moved from line 363 to this line (and line 363 was deleted)
    - i. Note, ICD-9 diagnoses for pulmonary valve acquired disorders also moved to line 274 at the April 2012 VbBS meeting

## CODE PLACEMENT

- 1) Line 122 CONGENITAL HEART BLOCK; OTHER OBSTRUCTIVE ANOMALIES OF HEART
  - a. Add valvuloplasty and valve replacement CPT codes (from line 274) to pair with Q23.8 (Other congenital malformations of aortic and mitral valves)
    - i. 33420-33496, 33530, 92986-92993
  - b. Add all pacemaker ICD-10 and CPT codes to pair with Q24.6 (Congenital heart block)
    - i. Z45.010-Z45.09 (Encounter for adjustment and management of pacemaker/cardiac defibrillator)
    - ii. 33202-33249, 33262-33264, 93279-93296 (pacemaker and defibrillator insertion and maintenance codes)

# Overview of Recommendations for Converting Lines to ICD-10-CM

## Ophthalmology

*Specialty consultants: Charles Bock MD; Derek Louie, MD; Marc East, MD*

### CREATE NEW LINES

1) Condition: CHORIORETINAL INFLAMMATION

Treatment: MEDICAL, SURGICAL, AND LASER TREATMENT

ICD-10: H30.001-H30.93, H20.821-829 (Vogt Koyanagi syndrome),

H44.111-H44.119 (Panuveitis), H44.131-9 (Sympathetic uveitis)

CPT: all CPT codes currently on line 106;

This condition must always be treated, with good efficacy of treatment. These conditions are eminently treatable with good outcome for functional vision. Without care, patients could be left blind with severe pain. Need for treatment 100%, efficacy of treatment 3, normally impacts 20-40 year olds.

Note: H30.0-H30.9 currently on line 106, H20.8 to H44.1 currently on line 286

Scoring: using scores from line 106 with vulnerable population changed from 2 to 0, the category changed to category 7, and tertiary prevention changed from 0 to 3.

Category: 7

HLI: 5

Suffering: 3

Pop effects: 0

Vul pop: 0

Tertiary prvntn: 3

Effectiveness: 3

Need: 1

Net cost: 3

Total: 660

Approximate Line: 390

2) Condition: STRABISMUS DUE TO NEUROLOGIC DISORDER

Treatment: MEDICAL AND SURGICAL TREATMENT

ICD-10 codes: H49.00-H49.13, H51.20-H51.23 (from 452 STRABISMUS;  
CONGENITAL ANOMALIES OF EYE)

CPT codes: all CPT codes currently on line 452, except 66840-66984;

Add 68810,68811,68815,68816,68840; Add ectopion repair codes: 67914-

7. Add CPT codes currently on line 497 ACQUIRED PTOSIS AND  
OTHER EYELID DISORDERS WITH VISION IMPAIRMENT

This line was created by moving certain diagnoses from line 452. These conditions have a high likelihood of serious medical issues which need acute work up and treatment. Associated with very serious conditions

## Overview of Recommendations for Converting Lines to ICD-10-CM

such as impending stroke, aneurysm, etc. Very different work up and treatment from other conditions on line 452. Blepharoplasty procedure codes included (removal of excess eyelid skin), as these codes were felt to have a low likelihood of abuse in the types of neurological conditions on this line.

### Scoring

HLY: 5

Suffering: 2

Pop effects: 0

Vul pop: 0

Tertiary prvntn: 2

Effectiveness: 4

Need: 1

Net cost: 3

Score: 720

Approximate line: 380-385

Rescore what remains on 452 STRABISMUS; CONGENITAL ANOMALIES OF EYE

### Scoring

Category 7

HLY: 3

Suffering: 2

Pop effects: 0

Vul pop: 0

Tertiary prvntn: 1

Effectiveness: 4

Need: 1

Net cost: 3

Score: 480

Approximate line: 420

### **COMBINE MULTIPLE LINES**

- 1) Combine 537 DYSFUNCTION OF NASOLACRIMAL SYSTEM; LACRIMAL SYSTEM LACERATION and 654 STENOSIS OF NASOLACRIMAL DUCT (ACQUIRED)
  - a. Keep at line number 537
  - b. No significant difference between the outcomes and treatments for conditions on these two lines
  - c. All ICD-10 codes on 654 are already on 537
  
- 2) Line 174 GONOCOCCAL AND CHLAMYDIAL INFECTIONS OF THE EYE with 482 NEONATAL CONJUNCTIVITIS, DACRYOCYSTITIS AND CANDIDA INFECTION

## Overview of Recommendations for Converting Lines to ICD-10-CM

- a. Move line 482 diagnoses to line 174→P37.5 (neonatal candidiasis) and P39.1 (Neonatal conjunctivitis and dacryocystitis) are only codes on line 484 and need to be treated like other neonatal conjunctivitis diagnoses on line 174.
- b. Change line 174 name to GONOCOCCAL AND CHLAMYDIAL INFECTIONS OF THE EYE, NEONATAL CONJUNCTIVITIS
- c. New line should be at 174

### DELETE LINES

None

### RESCORE LINES

- 1) Line 374 ~~RETROLENTAL FIBROPLASIA~~ RETINOPATHY OF PREMATURITY  
Treatment: CRYOSURGERY  
ICD-10: all codes on current line 374  
CPT: Add all CPT codes on Line 106, plus cryosurgery (67227-67229)

The group felt that this should be the highest ophthalmology line because sight is saved for entire life (change HLY from 4 to 6), highly effective (change effectiveness from 3 to 4).

#### Scoring

Category 7

HLY: 6

Suffering: 3

Pop effects: 0

Vul pop: 1

Tertiary prvntn: 5

Effectiveness: 4

Need: 1

Net cost: 4

Score: 1200

Approximate line: 300

- 2) Line 452 ~~STRABISMUS WITHOUT AMBLYOPIA AND OTHER DISORDERS OF BINOCULAR EYE MOVEMENTS; CONGENITAL ANOMALIES OF EYE~~  
Treatment: MEDICAL AND SURGICAL TREATMENT  
ICD-10: all current  
CPT: all current

#### Scoring

# Overview of Recommendations for Converting Lines to ICD-10-CM

Category 7  
HLY: 3  
Suffering: 2  
Pop effects: 0  
Vul pop: 0  
Tertiary prvntn: 1  
Effectiveness: 4  
Need: 1  
Net cost: 3  
Score: 480  
Approximate line: 420

## **GUIDELINES**

- 1) Line 149 GLAUCOMA, OTHER THAN PRIMARY ANGLE-CLOSURE
  - a. Add vitrectomy code CPT 67036 to Line 149
  - b. Add coding specification to line 149
    - i. "Vitreotomy (CPT 67036) is only covered for treatment of ICD-10 codes H40.831 to H40.839."
  
- 2) Line 497 ACQUIRED PTOSIS AND OTHER EYELID DISORDERS WITH VISION IMPAIRMENT
  - a. Moved Dermatochalasis codes (H02.831-9) to line 497 from line 597
  - b. Blepharoplasty (removal of part of upper eyelid) is a treatment for some disorders on this line when vision is impaired. However, there is currently no guideline or DMAP administrative rule regarding what constitutes vision impairment.
  - c. Proposed guideline: this guideline is based on several insurance criteria and Medicare criteria, with the most conservative criteria from these sources used

## **GUIDELINE XXX BLEPHAROPLASTY**

### *Line 497*

Blepharoplasty is covered when 1) visual fields demonstrate an absolute superior defect to within 15 degrees of fixation, 2) upper eyelid position contributes to difficulty tolerating a prosthesis in an anophthalmic socket, 3) essential blepharospasm or hemifacial spasm is present, OR 4) when there is significant ptosis in the downgaze reading position.

- 3) Line 308 COMPLICATIONS OF A PROCEDURE ALWAYS REQUIRING TREATMENT
  - a. Current coding specification applied to this line: "360.3 (hypotony) is only included on this line when resulting from a complication of a procedure. Non-procedure related cases are included on Line 686."

## Overview of Recommendations for Converting Lines to ICD-10-CM

- b. This coding specification is actually a guideline and needs to be changed to such
- c. This guideline needs to be changed to include the relevant ICD-10 codes: H44.40 (Unspecified hypotony of eye), H44.411-419 (flat anterior chamber hypotony)
- d. Primary hypotony is never a complication and should not be on this line (686 only)
- e. Proposed guideline (to be implemented only with the ICD-10 List due to coding changes with greater specificity in ICD-10 regarding hypotony):

### **GUIDELINE NOTE XXX HYPOTONY**

*Line 308, 686*

~~360.3 (hypotony)~~ H44.40 (unspecified hypotony of the eye) and H44.411-419 (Flat anterior chamber hypotony) are only included on this line when resulting from a complication of a procedure. Non-procedure related cases are included on Line 686.

- 4) Modification of current guideline note 32
  - a. The experts felt that this guideline should be clarified and strengthened. The new wording is based mainly on current Medicare coverage guidelines.
  - b. This guideline note change should become effective October 1, 2012
  - c. New wording shown below:

### **GUIDELINE NOTE 32, CATARACT**

*Line 320*

Cataract extraction is covered for binocular visual acuity of 20/50 or worse OR monocular visual acuity of 20/50 or worse with the recent development of symptoms related to poor vision ~~(headache, etc.)~~ that affect activities of daily living (ADLs). Cataract removal must be likely to restore vision and allow the patient to resume activities of daily living. There are rare instances where cataract removal is medically necessary even if visual improvement is not the primary goal: 1) hypermature cataract causing inflammation and glaucoma, 2) to see the back of the eye to treat posterior segment conditions that could not be monitored due to the poor view and very dense lens opacity (i.e. diabetic retinopathy, glaucoma); 3) Significant anisometropia causing aniseikonia.

### **RENAME LINES**

- 1) Line 106 ~~DIABETIC AND OTHER RETINOPATHY Treatment LASER SURGERY~~ Medical, Surgical, and Laser Treatment

## Overview of Recommendations for Converting Lines to ICD-10-CM

- a. add 67028 to this line
- 2) Line 149 GLAUCOMA, OTHER THAN PRIMARY ANGLE-CLOSURE Treatment ~~MEDICAL AND SURGICAL TREATMENT~~ Medical, Surgical, and Laser Treatment
- 3) Line 258 PRIMARY ANGLE-CLOSURE GLAUCOMA Treatment ~~IRIDECTOMY, LASER SURGERY~~ Medical, Surgical, and Laser Treatment
- 4) Line 286 ~~SYMPATHETIC UVEITIS AND ADVANCED DEGENERATIVE DISORDERS AND CONDITIONS OF GLOBE~~
  - a. Sympathetic uveitis moved to newly created line
- 5) Line 321 CATARACT, EXCLUDING CONGENITAL
- 6) Line 429 APHAKIA AND OTHER DISORDERS OF LENS Treatment: ~~INTRAOCULAR LENS~~ MEDICAL AND SURGICAL THERAPY
- 7) Line 461 RECURRENT EROSION OF THE CORNEA Treatment: ~~CORNEAL TATTOO, ANTERIAL STROMAL PUNCTURE,~~ REMOVAL OF CORNEAL EPITHELIUM; WITH OR WITHOUT CHEMOCAUTERIZATION
  - a. Add corneal scraping 65430, take off 65436
- 8) Line 465 VENOUS TRIBUTARY (BRANCH) OCCLUSION; CENTRAL RETINAL VEIN OCCLUSION Treatment: ~~LASER SURGERY,~~ MEDICAL THERAPY INCLUDING INJECTION
  - a. Add CPT for Injection (67028)
- 9) Line 473 DEGENERATION OF MACULA AND POSTERIOR POLE Treatment ~~MEDICAL, SURGICAL AND LASER THERAPY~~ VITRECTOMY, LASER SURGERY
- 10) Line 485 CENTRAL PTERYGIUM AFFECTING VISION
- 11) Line 497 ~~PTOSIS (ACQUIRED) WITH VISION IMPAIRMENT~~ ACQUIRED PTOSIS AND OTHER EYELID DISORDERS WITH VISION IMPAIRMENT
- 12) Line 499 ~~KERATOCONJUNCTIVITS, CORNEAL ABSCESS AND NEOVASCULARIZATION~~
  - a. Removed corneal abscess diagnoses at June, 2011 HSC meeting; neovascular diagnoses moved to line 686
- 13) Line 524 ~~ECTROPION, TRICHIASIS OF EYELID, AND BENIGN NEOPLASM OF EYELID~~

### CODE PLACEMENT

- 1) Line 263 RETAINED INTRAOCULAR FOREIGN BODY, MAGNETIC AND NONMAGNETIC
  - a. Add vitrectomy, iridectomy, lensectomy 66852, 67036, 66160, 66850, 66840, 66940 codes
- 2) Move neonatal lacrimal duct obstruction ICD-10 codes (H04.531-9) from line 686 SENSORY ORGAN CONDITIONS WITH NO OR MINIMALLY

## Overview of Recommendations for Converting Lines to ICD-10-CM

- EFFECTIVE TREATMENTS OR NO TREATMENT NECESSARY to line 452 STRABISMUS; CONGENITAL ANOMALIES OF EYE.
- a. Add 68810-68840 (probing of nasolacrimal duct) to line 452 to pair with congenital lacrimal duct occlusion
  - b. The experts felt that it was unconscionable to not cover neonatal lacrimal duct obstruction. Probing fixes them for life, 90% effective (if primary, 98% effective).. Otherwise they will have lifelong problems. Kids have chronic infection, purulent eye crusted over. May develop recurrent dacryocystitis, fistula formation, need extensive and expensive reconstruction.
- 3) Add 65430 to line 461, remove 65436
- 4) Line 537 DYSFUNCTION OF NASOLACRIMAL SYSTEM; LACRIMAL SYSTEM LACERATION
- a. Neonatal nasolacrimal duct obstruction codes moved to line 452 STRABISMUS; CONGENITAL ANOMALIES OF EYE
- 5) Line 624 EPISCLERITIS
- a. Nodular episcleritis moved to line 361 SCLERITIS
- 6) Line 686 SENSORY ORGAN CONDITIONS WITH NO OR MINIMALLY EFFECTIVE TREATMENTS OR NO TREATMENT NECESSARY
- a. Retinal hemorrhage codes moved to line 286 SYMPATHETIC UVEITIS AND DEGENERATIVE DISORDERS AND CONDITIONS OF GLOBE
  - b. Codes for serous and hemorrhagic detachment of retinal pigment epithelium moved to line 299 RETINAL DETACHMENT AND OTHER RETINAL DISORDERS
  - c. Effective treatments exist for these conditions

# Overview of Recommendations for Converting Lines to ICD-10-CM

## Obstetrics and Gynecology

*Specialty consultants: Dr. Michelle Berlin, Dr. Sally Wentross*

### CREATE NEW LINES

None

### COMBINE MULTIPLE LINES

- 1) Lines 43 ECTOPIC PREGNANCY, 59 HYDATIDIFORM MOLE, and 159 CHORIOCARCINOMA
  - a. All CPT and ICD-10 codes from all lines
  - b. Title new line: ECTOPIC PREGNANCY; HYDATIDIFORM MOLE; CHORIOCARCINOMA
  - c. Keep at line 43
  - d. Choriocarcinoma is on the spectrum of hydatidiform mole. Should be prioritized on same line (ie merge line 59 and 159). Choriocarcinoma was the first treatable cancer, the best studied of all. This is a young population and is fully treatable.
  - e. Ectopic pregnancy and hydatidiform mole/choriocarcinoma are both life threatening, you may need to use similar procedures of D&C and abdominal procedures, and complications are similar, and the new codes have molar and ectopic pregnancies grouped together—makes sense to group these diagnoses together on the same line.
- 2) Line 69 SPONTANEOUS ABORTION COMPLICATED BY INFECTION AND/OR HEMORRHAGE, MISSED ABORTION and Line 394 SPONTANEOUS ABORTION
  - a. All CPT and ICD-10 codes from both lines
  - b. Title new line: SPONTANEOUS ABORTION; MISSED ABORTION
  - c. Keep at line 69
  - d. Very little difference in approach or treatment for various abortion types (spontaneous or missed or incomplete); may be difficult when patient first presents to distinguish which will be the final diagnosis. Confusing to providers to have two lines.
- 3) Line 380 CONGENITAL ABSENCE OF VAGINA and Line 403 IMPERFORATE HYMEN; ABNORMALITIES OF VAGINAL SEPTUM
  - a. All CPT and ICD-10 codes from both lines
  - b. Keep at line 380
  - c. All blocked menstruation codes merged into this line
  - d. Line 380 renamed STRUCTURAL CAUSES OF AMENORRHEA CONGENITAL ABSENCE OF VAGINA Treatment: ARTIFICIAL VAGINA SURGICAL TREATMENT

### DELETE LINES

- 1) Line 510 CERVICITIS, ENDOCERVICITIS, HEMATOMA OF VULVA, AND NONINFLAMMATORY DISORDERS OF THE VAGINA deleted and all codes moved to other lines
- 2) Line 613 OLD LACERATION OF CERVIX AND VAGINA all codes moved to other lines
- 3) Line 614 VULVAL VARICES. Only ICD-10 code on this line moved to 587 with CPT codes.

# Overview of Recommendations for Converting Lines to ICD-10-CM

## RESCORE LINES

- 1) Line 260 TORSION OF OVARY
  - a. Rationale: exquisitely painful, not self-resolving, will lead to necrosed ovary; don't really know natural progression in untreated populations as this condition is always treated. Requires emergent surgery.

### Scoring

Category 6  
HLY 4→7  
Pain and suffering 2→5  
Population effects 0  
Vulnerable population 0  
Tertiary prevention 1  
Effectiveness 5  
Need for treatment 1  
Cost 4  
Score:  
Approx line: 70

- 2) Line 84 DEEP ABSCESSSES, INCLUDING APPENDICITIS AND PERIORBITAL ABSCESS
  - a. Incidentally when reviewing the torsion of ovary, noticed that appendicitis line just had a suffering level of 1. This seems too low.

### Scoring

Category 6  
HLY 7  
Pain and suffering 1→4  
Population effects 0  
Vulnerable population 0  
Tertiary prevention 4  
Effectiveness 5  
Need for treatment 1  
Cost 1  
Score: 3000  
Approx line: 45

## GUIDELINES

All non-hysterectomy guidelines reviewed and thought to be appropriate without changes. Hysterectomy guidelines modified with recommendation to implement October 1, 2012. See attached sheet.

## RENAME LINES

- 4) Line 57 GONOCOCCAL INFECTIONS AND OTHER SEXUALLY TRANSMITTED DISEASES OF THE ORAL, ANAL AND GENITOURINARY TRACT
- 2) Line 311 CANCER OF VAGINA, VULVA AND OTHER FEMALE GENITAL ORGANS
- 3) Line 428 UTERINE LEIOMYOMA AND POLYPS
- 4) Line 451 VAGINITIS, TRICHOMONIASIS AND CERVICITIS

## Overview of Recommendations for Converting Lines to ICD-10-CM

- 5) Line 453 NONINFLAMMATORY DISORDERS AND BENIGN NEOPLASMS OF OVARY, FALLOPIAN TUBES AND UTERUS; OVARIAN CYSTS; STREAK OVARIES GONADAL DYSGENESIS
  - a. 453 should have all gonadal dysgenesis codes (streak ovaries are a subset of these)—moved all gonadal dysgenesis codes from line 495 to line 453 and renamed the lines as above
- 6) Line 492 UTERINE PROLAPSE; CYSTOCELE Treatment SURGICAL REPAIR MEDICAL AND SURGICAL TREATMENT
- 7) Line 495 OVARIAN GONADAL DYSFUNCTION, GONADAL DYSGENESIS, MENOPAUSAL MANAGEMENT
  - a. Has some testicular diagnoses on this line, need more inclusive name
- 8) Line 587 BENIGN NEOPLASM AND CONDITIONS OF EXTERNAL FEMALE GENITAL ORGANS
- 9) Line 658 NONINFLAMMATORY DISORDERS OF CERVIX; HYPERTROPHY OF LABIA BENIGN CERVICAL CONDITIONS
  - a. Treatments on this line include pessaries, medical management

### CODE PLACEMENT

- 1) L90.0 (lichen sclerosus) was initially found on line 534 CIRCUMSCRIBED SCLERODERMA. At the March, 2012 VBBS meeting, this diagnosis was moved in ICD-9 to line 460 and line 460 renamed DYSTROPHY OF VULVA PRECANCEROUS VULVAR CONDITIONS. These changes will follow through in ICD-10.
- 2) Line 1 PREGNANCY was reviewed in detail and no code movements were recommended
  - a. The codes on this line are used by maternity care providers to bill for management of patients/fetuses with complications that might be primarily managed by other specialists (i.e. “pregnancy complicated by renal failure” would be coded by the obstetrician monitoring the fetus and providing expert input on the maternal physiology, “renal failure” would be coded by the nephrologist managing the dialysis).

## Progesterone Containing IUD Use Prior to Hysterectomy

Question: Should progesterone-containing IUDs be one option for hormonal treatment required prior to hysterectomy for several conditions covered in the hysterectomy guidelines?

Question source: OHP medical directors, HERC staff

Issue: In December, 2011, the HSC added coverage for progesterone containing IUDs for menorrhagia (heavy menstrual bleeding) and for uterine protection in women taking hormone replacement or SERMs. The OHP medical directors asked HERC staff to review other indications for progesterone containing IUDs, such as endometriosis and adenomyosis. Specifically, the plans feel that IUD use can be a considerable cost savings if used in some situations which allow the avoidance of hysterectomy.

From Larry Cohen, Medical Director Cascade Comprehensive Care:

In a recent UR committee review, we at CCC called into question some of the wording in guide note 39 (qualification for hysterectomy in someone with adenomyosis of the uterus). The Up-to-Date citation on this matter suggests the use of a progesterone secreting IUD (Mirena) as an effective alternative to combination OCP's. Guide note 39 seems to direct that only OCP's (barring a contraindication) or danazol be used for the 6 month trial before surgery. I'm wondering if we can add the use of progesterone secreting IUD as an alternative to OCP's. This specifically references section A.2.a.i. and incorporates some additional studies...Given the current wording of guide note 39, our UR committee felt compelled to approve a hysterectomy for adenomyosis in a patient that had a contraindication to using OCP's.

From Lyle Jackson, Medical Director MRIPA

I have taken the usage of OCP in Guideline 39 to mean the various types of recognizable hormonal therapies delivered by means of a tablet, patch, injection, secreting IUDs., etc to be used to relieve the dysmenorrhea associated with endometriosis and adenomyosis.

From the December, 2011 evidence review on uses of progesterone containing IUDs:

- 1) There is strong evidence for use of progesterone containing IUDs for treatment of
  - a. Menorrhagia
  - b. Uterine protection in women taking estrogen replacement therapy or tamoxifen
- 2) There is moderate evidence for use of progesterone containing IUDs for treatment of
  - a. Fibroids
- 3) There is some evidence for the use of progesterone containing IUDs for treatment of
  - a. Endometriosis
  - b. Adenomyosis
  - c. Endometrial hyperplasia

Current IUD guideline:

### **GUIDELINE NOTE XXX USE OF PROGESTERONE CONTAINING IUDS FOR NON-CONTRACEPTIVE INDICATIONS**

*Lines 197, 446, 495*

Intrauterine device (IUD) insertion and removal (CPT 58300 and 58301) are included on these lines for use only with progesterone-containing IUDs. These CPT codes are covered only for 1) menorrhagia (ICD-9 626.2); 2) for uterine protection in women taking estrogen replacement

## Progesterone Containing IUD Use Prior to Hysterectomy

therapy after premature ovarian failure (ICD-9 256.3) or menopause (ICD-9 627); and 3) for uterine protection in women taking selective estrogen receptor modulators (SERMs).

### Expert input:

The OB/Gyn ICD-10 reviewers (Drs. Sally Wentross and Michelle Berlin) gave recommendations for changes to the hysterectomy guidelines as part of the ICD-10 review.

### Recommendations:

- 1) Consider adding adenomyosis, endometriosis, and dysmenorrhea as indications for progesterone containing IUDs to the IUD guideline
  - a) Evidence in support is not strong
- 2) Change the wording of the hormone therapy sections of existing guidelines to allow use of progesterone containing IUDs at the discretion of the OHP managed care plans
  - a) Less expensive alternative to hysterectomy
  - b) See suggested wording below
- 3) Adopt other changes to the hysterectomy guidelines as suggested by the ICD-10 OB/GYN reviewers as shown below effective October 1, 2012
  - a) Changed hormonal therapy wording to be more inclusive of various types of therapy as noted in #2 above
  - b) Deleted requirement in several guideline for age > 30 as this was thought to be somewhat arbitrary
  - c) Changed wording of “remedial pathology” to “treatable conditions or lesions” as this was felt to be more understandable
  - d) Adding a clause that anemia required for diagnosis of menorrhagia is prior to iron therapy; many gynecologists treat patients with iron to increase hematocrit prior to surgery
  - e) Desire for requirement for pelvic physical therapy prior to hysterectomy for two conditions
    - i) Note: this treatment is a non-covered service
  - f) Note: no changes recommended to Guideline Note 40 Uterine Leiomyoma or to Guideline Note 50 Uterine Prolapse

## **GUIDELINE NOTE 39, ENDOMETRIOSIS AND ADENOMYOSIS**

### *Line 417*

- A) Hysterectomy, with or without adnexectomy, for endometriosis may be appropriate when all of the following are documented (1-4):
  - 1) Patient history of (a and b):
    - a) Prior detailed operative description or histologic diagnosis of endometriosis
    - b) Presence of pain for more than 6 months with negative effect on patient’s quality of life
  - 2) Failure of a 3-month therapeutic trial with both of the following (a and b), unless there are contraindications to use:
    - a) Hormonal therapy (i or ii):
      - i) ~~Oral contraceptives~~ Oral contraceptive pills or patches, progesterone-containing IUDs, injectable hormone therapy, or similar
      - ii) Agents for inducing amenorrhea (e.g., GnRH analogs or danazol)

## Progesterone Containing IUD Use Prior to Hysterectomy

- b) Nonsteroidal anti-inflammatory drugs
- 3) Nonmalignant cervical cytology, if cervix is present
- 4) Negative preoperative pregnancy test result unless patient is postmenopausal or has been previously sterilized
- B) Hysterectomy, with or without adnexectomy, for adenomyosis may be appropriate when all of the following are documented (1-6):
  - 1) Patient history of dysmenorrhea, pelvic pain or abnormal uterine bleeding for more than six months with a negative effect on her quality of life.
  - 2) Failure of a six-month therapeutic trial with both of the following (a and b), unless there are contraindications to use:
    - a) Hormonal therapy (i or ii):
      - i) ~~Oral contraceptives~~ Oral contraceptive pills or patches, progesterone-containing IUDs, injectable hormone therapy, or similar
      - ii) Agents for inducing amenorrhea (e.g., GnRH analogs or danazol)
    - b) Nonsteroidal anti-inflammatory drugs
  - 3) ~~Age > 30 years~~
  - 4) One of the following (a or b):
    - a) Endovaginal ultrasound suspicious for adenomyosis (presence of abnormal hypoechoic myometrial echogenicity or presence of small myometrial cysts)
    - b) MRI showing thickening of the junctional zone > 12mm
  - 5) Nonmalignant cervical cytology, if cervix is present
  - 6) Negative preoperative pregnancy test unless patient is postmenopausal or has been previously sterilized

### **GUIDELINE NOTE 44, MENSTRUAL BLEEDING DISORDERS**

#### *Line 441*

Endometrial ablation or hysterectomy for abnormal uterine bleeding in Premenopausal women may be indicated when all of the following are documented (A-C):

- A) Patient history of (1, 2, 3, 4, and 5):
  - 1) Excessive uterine bleeding evidence by (a and b):
    - a) Profuse bleeding lasting more than 7 days and/or repetitive periods at less than 21-day intervals
    - b) Anemia due to acute or chronic blood loss (hemoglobin less than 10) prior to iron therapy
  - 2) Failure of hormonal treatment for a six-month trial period or contraindication to hormone use (oral contraceptive pills or patches, progesterone-containing IUDs, injectable hormone therapy, or similar)
  - 3) No current medication use that may cause bleeding, or contraindication to stopping those medications
  - 4) Endometrial sampling performed
  - 5) No evidence of ~~remedial pathology~~ treatable intrauterine conditions or lesions by (a, b or c):
    - a) Sonohysterography
    - b) Hysteroscopy
    - c) Hysterosalpingography
- B) Negative preoperative pregnancy test result unless patient is ~~postmenopausal~~ or has been previously sterilized
- C) Nonmalignant cervical cytology, if cervix is present

## Progesterone Containing IUD Use Prior to Hysterectomy

### GUIDELINE NOTE 55, PELVIC PAIN SYNDROME

Line 543

Diagnostic MRI may be indicated for evaluation of pelvic pain to assess for Adenomyosis and to assist in the management of these challenging patients when all of the following are documented:

- 1) Patient history of dysmenorrhea, pelvic pain or abnormal uterine bleeding for more than six months with a negative effect on her quality of life.
- 2) Failure of a six-month therapeutic trial with both of the following (a and b), unless there are contraindications to use:
  - a) Hormonal therapy (i or ii):
    - i) ~~Oral contraceptives of Depo-Provera~~ Oral contraceptive pills or patches, progesterone-containing IUDs, injectable hormone therapy, or similar
    - ii) Agents for inducing amenorrhea (e.g., GnRH analogs or danazol)
  - b) Nonsteroidal anti-inflammatory drugs
- 3) ~~Age > 30 years~~
- 4) An endovaginal ultrasound within the past 12 months that shows no other suspected gynecological pathology if diagnostic MRI shows > 12mm thickening of the junctional zone, the presumptive diagnosis of adenomyosis is fulfilled. See Guideline Note 39.

Hysterectomy for chronic pelvic pain in the absence of significant pathology may be

Indicated when all of the following are documented (1-7):

- 5) Patient history of:
  - a) ~~No remedial pathology~~ treatable conditions or lesions found on laparoscopic examination
  - b) Pain for more than 6 months with negative effect on patient's quality of life
- 6) Failure of a six-month therapeutic trial with both of the following (a and b), unless there are contraindications to use:
  - a) Hormonal therapy (i or ii):
    - i) ~~Oral contraceptives~~ Oral contraceptive pills or patches, progesterone-containing IUDs, injectable hormone therapy, or similar
    - ii) Agents for inducing amenorrhea (e.g., GnRH analogs or danazol)
  - b) Nonsteroidal anti-inflammatory drugs
- 7) Evaluation of the following systems as possible sources of pelvic pain:
  - a) Urinary
  - b) Gastrointestinal
  - c) Musculoskeletal
    - i) If found, failure of a 6 month trial of pelvic physical therapy
- 8) Evaluation of the patient's psychologic and psychosexual status for nonsomatic cause of symptoms
- 9) Nonmalignant cervical cytology, if cervix is present
- 10) Assessment for absence of endometrial malignancy in the presence of abnormal bleeding
- 11) Negative preoperative pregnancy test unless patient is postmenopausal or as been previously sterilized

### GUIDELINE NOTE 59, DYSMENORRHEA

Line 571

Hysterectomy for dysmenorrhea may be indicated when all of the following are documented (A-G):

- A) Patient history of:

## Progesterone Containing IUD Use Prior to Hysterectomy

- 1) No ~~remedial pathology~~ treatable conditions or lesions found on laporoscopic examination
- 2) Pain for more than 6 months with negative effect on patient's quality of life
- B) Failure of a six-month therapeutic trial with both of the following (1 and 2), unless there are contraindications to use:
  - 1) Hormonal therapy (a or b):
    - a) ~~Oral contraceptives~~ Oral contraceptive pills or patches, progesterone-containing IUDs, injectable hormone therapy, or similar
    - b) Agents for inducing amenorrhea (e.g., GnRH analogs or danazol)
  - 2) Nonsteroidal anti-inflammatory drugs
- C) Evaluation of the following systems as possible sources of pelvic pain:
  - 1) Urinary
  - 2) Gastrointestinal
  - 3) Musculoskeletal
    - i) If found, failure of a 6 month trial of pelvic physical therapy
- D) Evaluation of the patient's psychologic and psychosexual status for nonsomatic cause of symptoms
- E) Nonmalignant cervical cytology, if cervix is present
- F) Assessment for absence of endometrial malignancy in the presence of abnormal bleeding
- G) Negative preoperative pregnancy test unless patient is ~~postmenopausal~~ or has been previously sterilized

# Endocrinology Recommendations for ICD-10-CM

*Specialty consultant: Dr. Andrew Ahmann, OHSU*

## CREATE NEW LINES

- 1) **DYSLIPIDEMIAS** – these are currently inappropriately paired with childhood inherited metabolic disorders on line 67. They should be their own line.
  - a. ICD 10 codes:

E78.1	Pure hyperglyceridemia
E78.2	Mixed hyperlipidemia
E78.3	Hyperchylomicronemia
E78.4	Other hyperlipidemia
E78.5	Hyperlipidemia, unspecified
E78.6	Lipoprotein deficiency
  - b. Ranking
    - Category =3
    - HLY=6
    - Pain and suffering = 0
    - Population effects =0
    - Vulnerable populations =1
    - Effectiveness of treatment = 4
    - Need for therapy = .70
    - Cost = 4, include diet and exercise counseling
    - Score = 1470
    - Line = 235
  
- 2) **ACROMEGALY AND GIGANTISM** – this is currently paired on line 371 with benign pituitary tumors. Treatment of acromegaly is important because of the significant impacts on cardiovascular disease, untreated, they will die in their 30s or 40s, and treatment is quite successful.
  - a. ICD 10 code: E22.0 Acromegaly and pituitary gigantism
  - b. Ranking
    - Category = 6
    - HLY=7
    - Pain and suffering = 2 (for arthritis)
    - Population effects = 0
    - Vulnerable populations = 0
    - Tertiary prevention = 3
    - Effectiveness of treatment = 4
    - Need for therapy = 1.0
    - Cost =1
    - Score = 1920
    - Line = 165

# Endocrinology Recommendations for ICD-10-CM

## COMBINE MULTIPLE LINES

Line 93: Condition: DISORDERS OF PANCREATIC ENDOCRINE SECRETION

Line 33 TYPE II DIABETES MELLITUS

→ Merge line 93 into line 33

**Rationale:** Line 93 includes diabetes induced by other conditions or drugs. The source of diabetes is not that important as the morbidity and mortality from it is the same once developed.

→ except E16 codes to Line 371 ACROMEGALY AND GIGANTISM, OTHER AND UNSPECIFIED ANTERIOR PITUITARY HYPERFUNCTION, BENIGN NEOPLASM OF THYROID GLAND AND OTHER ENDOCRINE GLANDS

E16.1 Other hypoglycemia 93(A),684

E16.3 Increased secretion of glucagon 93(D),371(A)

E16.4 Increased secretion of gastrin 93(D),371(A)

E16.8 Other specified disorders of pancreatic internal secretion 93(D),371(A)

E16.9 Disorder of pancreatic internal secretion, unspecified 93(D),371(A)

Surgery is also on Line 93, and is indicated for some codes such as somatostatinomas and glucagonomas), so these would be included on Line 33.

## DELETE LINES

### Line 162 BENIGN NEOPLASM OF PITUITARY GLAND

1. D35.2 Pituitary adenoma - This is nonfatal, biggest problem is that if they grow can impair vision. It is more appropriate on line 371 (ACROMEGALY AND GIGANTISM, OTHER AND UNSPECIFIED ANTERIOR PITUITARY HYPERFUNCTION, BENIGN NEOPLASM OF THYROID GLAND AND OTHER ENDOCRINE GLANDS)
2. D35.3 Benign neoplasm of craniopharyngeal duct – more a neurosurgery issue, should be on 137 BENIGN NEOPLASM OF THE BRAIN

## RESCORE LINES

None

## GUIDELINES

GUIDELINE NOTE XX

Hypoglycemia code E16.1 is included on line 33 only for neonatal hypoglycemia or when all three criteria of Whipple's triad are present:

1) symptoms and signs consistent with hypoglycemia

2) a low plasma glucose concentration (<55mg/dl)

3) resolution of these symptoms or signs after the plasma glucose concentration is raised.

## CODE PLACEMENT

E31.0 E31.8 and E31.9 autoimmune polyglandular failure currently on Line 272 MULTIPLE ENDOCRINE NEOPLASIA. Autoimmune polyglandular failure usually includes adrenal insufficiency, and should be considered along the same line of severity as Addison's disease. Recommended remapping these to Line 83 ADDISON'S DISEASE

The Endocrine Society's  
CLINICAL | GUIDELINES

Evaluation and Management  
of Adult Hypoglycemic Disorders:  
An Endocrine Society Clinical Practice Guideline



THE JOURNAL OF  
CLINICAL  
ENDOCRINOLOGY  
& METABOLISM

# Abstract

**Objective:** The aim is to provide guidelines for the evaluation and management of adults with hypoglycemic disorders, including those with diabetes mellitus.

**Participants:** The Task Force was composed of a chair, selected by the Clinical Guidelines Subcommittee (CGS) of The Endocrine Society, five additional experts, one methodologist, and a medical writer. The Task Force received no corporate funding or remuneration.

**Evidence:** Using the recommendations of the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) system, the quality of evidence is graded very low (⊕○○○), low (⊕⊕○○), moderate (⊕⊕⊕○), or high (⊕⊕⊕⊕).

**Consensus Process:** Consensus was guided by systematic reviews of evidence and discussions during one group meeting, several conference calls, and e-mail communications. The drafts prepared by the task force with the help of a medical writer were reviewed successively by The Endocrine Society's CGS, Clinical Affairs Core Committee (CACC), American Diabetes Association, European Association for the Study of Diabetes, the European Society of Endocrinology, and the Society's Council. The version approved by the CGS and CACC was placed on The Endocrine Society's Web site for comments by members. At each stage of review, the Task Force received written comments and incorporated needed changes.

**Conclusions:** We recommend evaluation and management of hypoglycemia only in patients in whom Whipple's triad—symptoms, signs, or both consistent with hypoglycemia, a low plasma glucose concentration, and resolution of those symptoms or signs after the plasma glucose concentration is raised—is documented. In patients with hypoglycemia without diabetes mellitus, we recommend the following strategy. First, pursue clinical clues to potential hypoglycemic etiologies—

drugs, critical illnesses, hormone deficiencies, nonislet cell tumors. In the absence of these causes, the differential diagnosis narrows to accidental, surreptitious, or even malicious hypoglycemia or endogenous hyperinsulinism. In patients suspected of having endogenous hyperinsulinism, measure plasma glucose, insulin, C-peptide, proinsulin,  $\beta$ -hydroxybutyrate, and circulating oral hypoglycemic agents during an episode of hypoglycemia and measure insulin antibodies. Insulin or insulin secretagogue treatment of diabetes mellitus is the most common cause of hypoglycemia. We recommend the practice of hypoglycemia risk factor reduction—addressing the issue of hypoglycemia, applying the principles of intensive glycemic therapy, and considering both the conventional risk factors and those indicative of compromised defenses against falling plasma glucose concentrations—in persons with diabetes.

*(J Clin Endocrinol Metab 94: 709–728, 2009)*

Abbreviations: CSII, Continuous sc insulin infusion; HAAF, hypoglycemia-associated autonomic failure; HbA<sub>1c</sub>, hemoglobin A<sub>1c</sub>; MDI, multiple daily insulin injection; MEN-1, multiple endocrine neoplasia, type 1; MRI, magnetic resonance imaging; NIPHS, noninsulinoma pancreatogenous hypoglycemia syndrome; T1DM, type 1 diabetes mellitus; T2DM, type 2 diabetes mellitus.

# Cardiac Transplant ICD 10 Recommendations

## Lung Transplant Recommendations for ICD 10 Conversion

*Specialty consultants:* Dr. Allada

### CODE PLACEMENT

Dr. Allada requested that current UNOS indications for lung transplant be reviewed by diagnosis to ensure that all recommended indications appear on one of the two lung transplant lines.

On review, many of the UNOS diagnoses were non specific, did not have specific ICD-9 or ICD-10 codes, or led to common end diagnoses such as pulmonary hypertension.

Current lung transplant lines:

**Line: 254**

Condition: DEFICIENCIES OF CIRCULATING ENZYMES (ALPHA 1-ANTITRYPSIN DEFICIENCY); CYSTIC FIBROSIS; EMPHYSEMA (See Guideline Notes 1,76)

Treatment: HEART-LUNG AND LUNG TRANSPLANT

ICD-9: 135,277.00-277.09,277.6,491.8,492.8,494.0-494.1,495.0-495.9,500-505,515,947.9,996.84

CPT: 32850-32856,33930-33935,86825,86826,94640,96150-96154

HCPCS: G0424,S2060,S2061

**Line: 256**

Condition: RESPIRATORY FAILURE DUE TO PRIMARY PULMONARY HYPERTENSION, PRIMARY PULMONARY FIBROSIS, LYMPHANGIOLEIOMYOMATOSIS, EISENMENGER'S DISEASE (See Guideline Notes 1,64,65,76)

Treatment: HEART-LUNG AND LUNG TRANSPLANTS

ICD-9: 238.1,416.0,516.30-516.4,516.63-516.69,745.0,745.4-745.5,747.0,996.84

CPT: 32850-32856,33930-33935,86825,86826,96150-96154,98966-98969,99051,99060,99070,99078,99201-99360,99366,99374,99375,99379-99444,99468-99480,99605-99607

HCPCS: G0406-G0408,G0425-G0427,S0270-S0274,S2060,S2061

From DMAP

I do not recall any requests for lung transplants in the last few years that have been denied. There are some strange diagnoses that do get submitted, but there is generally a more accurate one that is unearthed during the request process. All codes from 2010 that have been authorized for lung transplant: 492.8, 416, 277.02, 204, 515, 496, 277.6, 516.3, 277, 496, 277.6, 492.8.

Note: these diagnoses are COPD, pulmonary hypertension, cystic fibrosis, lymphoid leukemia, pulmonary fibrosis, hereditary angioedema, idiopathic fibrosing alveolitis, emphysema

# Cardiac Transplant ICD 10 Recommendations

## Recommendations:

- 1) Option 1: Adopt the changes in the table below as recommended by Dr. Allada
  - a. Lung transplant is a service which is unlikely to be abused
  - b. UNOS is considered a highly trusted evidence based source
- 2) Option 2: Make no changes in the current lines
  - a. Previous evidence review several years ago did not support adding diagnoses
  - b. Most of the diagnoses below will result in one of a few end diagnoses (such as pulmonary hypertension or emphysema) which is covered
  - c. No denials reported from DMAP for lung transplant requests with current diagnoses on these lines
  - d. Will still need to affirm placement of 273.4/E88.0 (Alpha-1 antitrypsin deficiency) on line 254 (does not appear on current List but is intended to be on this line based on database entry and line title)

## Cardiac Transplant ICD 10 Recommendations

Indication	ICD-9 code	ICD-10 code	On lung transplant line?	Place on 254 or 256?	Notes
Allergic bronchopulmonary aspergillosis	518.6	B44.81	No	No	Common references did not have lung transplant as treatment
Alpha-1 antitrypsin deficiency	273.4	E88.0	No	Yes 254	Listed on 254 in database, but does not appear there on current List
Pulmonary alveolar proteinosis	516.0	J84.0	No	Yes 256	Transplant recommended for refractory cases
Amyloidosis	277.3	E85	No	Yes 256	Based on expert recommendation (Dr. Allada)
Acute respiratory distress syndrome (ARDS)	518.5	J80	No	Yes 256	Based on expert recommendation
Bronchiolitis obliterans organizing pneumonia (BOOP)	516.8	J84.8	On 256		
Bronchiectasis (various types)	494	J47,	On 254		
Bronchoalveolar carcinoma (listed in ICD-9 and 10 as subset of lung cancer)	162.2-162.9	C34.0-9	No	No	Codes are too non-specific
Bronchopulmonary dysplasia	770.7	P27.1	No	Yes 256	Based on expert recommendation
Carcinoid tumorlets	209.61	C75	No	No	No, code is mainly for non-pulmonary disease
Chronic pneumonitis of infancy (no specific codes identified)					
Common variable immunodeficiency	279.06	D83	No	Yes 256	Based on expert recommendation
Congenital anomalies of lung—no specific ICD-9 or ICD-10 code identified					
Constrictive bronchiolitis	491.8		On 254		

## Cardiac Transplant ICD 10 Recommendations

Indication	ICD-9 code	ICD-10 code	On lung transplant line?	Place on 254 or 256?	Notes
COPD	492.8	J43.9	On 254		
CREST (under pulmonary hypertension)	416.0	I27.0	On 256		
Cystic fibrosis	277.0	E84	On 254		
Ehlers–Danlos syndrome	756.83	Q79.6	No	No	No, code is mainly for non-pulmonary disease
Eisenmenger's syndrome	745.4	Q21.8	On 256		
Eosinophilic granuloma (ICD-9 code is non specific: Other specified disorders of metabolism)	277.89	D76.0			
Fibrocavitary lung disease (ICD-9 code is non specific: "Other diseases of lung, not elsewhere classified"/ICD-10 code "Other disorders of lung")	518.89	J98.4			
Fibrosing mediastinitis (ICD-9 code "Mediastinitis" ICD-10 code "Diseases of mediastinum, not elsewhere classified")	519.2	J98.5			
Graft-versus-host disease	279.50	T86.0	No	Yes 256	Based on expert recommendation
Granulomatous lung disease (can represent a wide variety of lung diseases)					
Hermansky–Pudlak syndrome (no specific ICD-9 code)		E70.3	No		
Hypersensitivity pneumonitis	495	J67	On 254		
Hypogammaglobulinemia (part of common variable immunodeficiency above)					
Idiopathic pulmonary fibrosis	516.31	J84.1	On 256		
Idiopathic pulmonary haemosiderosis	516.1	J84.03	On 256 (ICD-10)		
Inhalation burns/trauma	947.1	T27.1XXA	No	No	No, code is mainly for non-pulmonary disease
Kartagener Syndrome (ICD-9/10 code is "situs inversus")	759.3	Q89.3	No	No	No, code is mainly for non-pulmonary disease

## Cardiac Transplant ICD 10 Recommendations

Indication	ICD-9 code	ICD-10 code	On lung transplant line?	Place on 254 or 256?	Notes
Lung retransplant (no specific coding found)					
Lupus erythematosus	695.4	L93	No	No	No, code is mainly for non-pulmonary disease
Lymphangiomyomatosis	516.4	J84.8	On 256		
Lymphocytic idiopathic pneumonitis (ICD-9 mixed connective tissue disease (ICD-9 code is non specific: "Other specified diffuse diseases of connective tissue"/ICD-10 "Other overlap syndromes")	516.32	J84.113	On 256		
Bronchiolitis obliterans	491.8	J41.8	On 254		
Obstructive lung disease (no specific codes available)					
Occupational lung disease (no specific codes available)					
Castleman's disease (ICD-9 code "Enlargement of lymph nodes")	785.6	R59.9	No	No	No, code is mainly for non-pulmonary disease
Polymyositis	710.4	M33.2	No	No	No, code is mainly for non-pulmonary disease
Porto-pulmonary hypertension (no specific ICD-9 code)					
Primary ciliary dyskinesia (ICD-9/10 code is "situs inversus")	759.3	Q89.3	No	Yes 256	Based on expert recommendation
Primary pulmonary hypertension; other forms of pulmonary hypertension	416.0	I27.0	On 256		
Pulmonary fibrosis (see idiopathic pulmonary fibrosis above)					
Pulmonary hyalinizing granuloma (no specific codes available)					
Pulmonary thromboembolic disease (leads to pulmonary hypertension, see above)					

## Cardiac Transplant ICD 10 Recommendations

Indication	ICD-9 code	ICD-10 code	On lung transplant line?	Place on 254 or 256?	Notes
Pulmonary vascular disease (no specific codes available)					
Pulmonary veno-occlusive disease (no specific codes available)					
Pulmonary valve stenosis	424.3	I37.0	No		Code for pulmonary hypertension if this is a result of the valvular disease
Pulmonary hypoplasia	748.5	Q33.6	No	Yes 256	Based on expert recommendation
Sarcoidosis	135	D86	On 254		
Schwachman-Diamond syndrome (article found did not mention lung disease as a component) no specific codes found					
Silicosis	502	J62	On 254		
Sjögren's syndrome	710.2	M35.0	No	No	No, code is mainly for non-pulmonary disease
Surfactant protein B deficiency (no specific coding identified)					
Teratoma (no specific coding identified)					
Tuberous sclerosis	759.5	Q85.1	No	No	No, code is mainly for non-pulmonary disease

## ICD 10 Recommendations – Abdominal Transplant

### CODE MOVEMENT

Line 92, DIABETES MELLITUS WITH END STAGE RENAL DISEASE, with treatment: SIMULTANEOUS PANCREAS/KIDNEY (SPK) TRANSPLANT, PANCREAS AFTER KIDNEY (PAK) TRANSPLANT

Currently, Line 92 only has Type 1 diabetes. The consultants felt that transplant should be covered for some type 2 diabetics as well. Rationale: Scientifically not really a big difference between type 1 and type 2 diabetes. Some candidates with type 2 diabetes could be candidates for pancreas, kidney transplants (young patients who are not obese). Nationally approximately 10% of all transplants are being done are type 2s so this has been adopted into national allocation policy. It hasn't been done in Oregon, but is not considered experimental.

1. Recommendation: Add Type II diabetes codes with ESRD to Line 92

Code	Code Description	Existing Line Recommendations
E11.21	Type 2 diabetes mellitus with diabetic nephropathy	66(D),110(D),33
E11.22	Type 2 diabetes mellitus with diabetic chronic kidney disease	66(D),110(D),33

# Outcomes of Simultaneous Pancreas-Kidney Transplantation in Type 2 Diabetic Recipients

Marcelo Santos Sampaio,<sup>\*,†</sup> Hung-Tien Kuo,<sup>\*,‡</sup> and Suphamai Bunnapradist<sup>\*</sup>

## Summary

**Background and objectives** Type 2 diabetic patients with end-stage renal disease may receive a simultaneous pancreas-kidney (SPK) transplant. However, outcomes are not well described. Risks for death and graft failure were examined in SPK type 2 diabetic recipients.

**Design, setting, participants, & measurements** Using the United Network for Organ Sharing database, outcomes of SPK transplants were compared between type 2 and type 1 diabetic recipients. All primary SPK adult recipients transplanted between 2000 and 2007 ( $n = 6756$ ) were stratified according to end-stage pancreas disease diagnosis (type 1:  $n=6141$ , type 2:  $n=582$ ). Posttransplant complications and risks for death and kidney/pancreas graft failure were compared.

**Results** Of the 6756 SPK transplants, 8.6% were performed in recipients with a type 2 diabetes diagnosis. Rates of delayed kidney graft function and primary kidney nonfunction were higher in the type 2 diabetics. Five-year overall and death-censored kidney graft survival were inferior in type 2 diabetics. After adjustment for other risk factors, including recipient (age, race, body weight, dialysis time, and cardiovascular comorbidities), donor, and transplant immune characteristics, type 2 diabetes was not associated with increased risk for death or kidney or pancreas failure when compared with type 1 diabetic recipients.

**Conclusions** After adjustment for other risk factors, SPK recipients with type 2 diabetes diagnosis were not at increased risk for death, kidney failure, or pancreas failure when compared with recipients with type 1 diabetes.

*Clin J Am Soc Nephrol* 6: 1198–1206, 2011. doi: 10.2215/CJN.06860810

## Introduction

Simultaneous pancreas-kidney transplantation (SPK) is one of the treatment options for type 1 diabetes mellitus (T1DM) patients with end-stage renal disease (ESRD) (1). Compared with kidney transplant alone, a successful SPK may improve quality of life (2,3), diminish the progression of diabetic complications (4,5), and possibly prolong patient and kidney allograft survival (6–9). In T1DM, SPK transplant outcomes are excellent, with a reported 5-year patient, kidney, and pancreas graft survival of 88%, 77% (10), and 69% (11), respectively.

The outcomes of SPK in type 2 diabetes mellitus (T2DM) are less well described and mostly represent single-center experiences. The largest published study included 38 SPK T2DM recipients, defined by a serum C-peptide level  $>0.8$  ng/ml (12–14). In T1DM and T2DM, 5-year patient survival was 85% and 73%, pancreas survival was 71% and 67%, and kidney survival was 77% and 72%, respectively. Another smaller study defined T2DM by a C-peptide level  $\geq 2.0$  ng/ml ( $n = 7$ ) and compared SPK outcomes with T1DM recipients. In T1DM and T2DM, recipients' 3-year patient survival was 94% and 71%, death-censored

pancreas survival was 87% and 100%, and death-censored kidney survival was 95% and 100%, respectively (15). Two additional studies reported outcomes in T2DM patients with pancreas transplants. One study with 17 recipients (7 were SPK) had 94% pancreas survival in 1 year, and 11 of the 12 recipients were alive and euglycemic after 3 years (16). The second study included only four SPK transplants, and the outcomes were one death, one pancreas failure within 2 years, and two recipients with euglycemic after 7 years (17).

In this study we analyzed data from the Organ Procurement and Transplant Network/United Network for Organ Sharing (OPTN/UNOS), described characteristics of ESRD T2DM recipients who underwent a SPK transplant in the United States, and compared their outcomes with T1DM recipients. Diabetes was defined based on the diagnosis of end-stage pancreas disease (ESPD) as declared by each pancreas transplant center to UNOS. The objectives of this study were to describe characteristics of T2DM ESRD recipients considered for a SPK and to identify risks for death and graft failure compared with T1DM recipients.

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# Neurosurgery Recommendations for ICD-10-CM

Specialty consultants: Drs. Fred Williams, Michael Dorsen

## CREATE NEW LINES

None

## COMBINE MULTIPLE LINES

None

## DELETE LINES

None

## RESCORE LINES

None

## GUIDELINES

Note: guideline change below recommended to be effective October 1, 2012

### GUIDELINE NOTE 37, DISORDERS OF SPINE WITH NEUROLOGIC IMPAIRMENT

Line: 397

Neurologic impairment is defined as objective evidence of one or more of the following:

- A) ~~Reflex loss~~ Abnormal reflexes
- B) ~~Dermatomal~~ Segmental muscle weakness
- C) ~~Dermatomal~~ Segmental sensory loss
- D) EMG or NCV evidence of nerve root impingement
- E) Cauda equina syndrome<sub>7</sub>
- F) Neurogenic bowel or bladder
- G) Long tract abnormalities

## RENAME LINES

- 1) Line 137 BENIGN NEOPLASM OF THE BRAIN AND SPINAL CORD  
~~TREATMENT: CRANIOTOMY/CRANIECTOMY, LINEAR ACCELERATOR, MEDICAL THERAPY, WHICH INCLUDES RADIATION THERAPY—MEDICAL, SURGICAL AND RADIATION TREATMENT~~
- 2) Line 91 DEEP OPEN WOUND OF NECK, INCLUDING LARYNX; FRACTURE OF LARYNX OR TRACHEA, OPEN
  - a. Line contains both open and closed injuries to neck structures

## CODE PLACEMENT

- 1) G96.0 (Cerebrospinal fluid leak) placed on line 308 COMPLICATIONS OF A PROCEDURE ALWAYS REQUIRING TREATMENT and removed from other lines and diagnostic list
  - a. Felt to be almost always due to surgical complication

# Overview of Recommendations for Converting Lines to ICD-10-CM Oral Maxillofacial Surgery Follow Up

*Specialty consultants:* Dr. Leon Assael

Recommendation requiring follow up from April, 2012 VBBS meeting:

## **CODE PLACEMENT**

- 1) K09.0 (Developmental odontogenic cysts) and K09.1 (Developmental (nonodontogenic) cysts of oral region) which are currently on line 549 BENIGN NEOPLASM BONE AND ARTICULAR CARTILAGE INCLUDING OSTEOID OSTEOMAS; BENIGN NEOPLASM OF CONNECTIVE AND OTHER SOFT TISSUE need be moved to covered line--move to line 486 BRANCHIAL CLEFT CYST; THYROGLOSSAL DUCT CYST; CYST OF PHARYNX OR NASOPHARYNX. These diagnoses are benign but can be highly locally aggressive and can become malignant.

HERC staff was asked to confer with Dr. Assael and determine how often these types of cysts need treatment and how common they are. The VBBS determined that these codes could be moved to a covered line if they are uncommon and usually treated; however if they are common and/or only infrequently need treatment, then HERC staff should work with experts to create a guideline for coverage to accompany the movement of these codes to the upper line.

Dr. Assael has indicated that these types of cysts are uncommon and always require treatment.

Recommendation: Move K09.0 and K09.1 to line 486.

## **Appendix A: Recommended changes in ICD-9 format**

### **CODE PLACEMENT**

- 1) 526.0 (Developmental odontogenic cysts) and 526.1 (Developmental (nonodontogenic) cysts of oral region) which are currently on line 549 BENIGN NEOPLASM BONE AND ARTICULAR CARTILAGE INCLUDING OSTEOID OSTEOMAS; BENIGN NEOPLASM OF CONNECTIVE AND OTHER SOFT TISSUE need be moved to covered line--move to line 486 BRANCHIAL CLEFT CYST; THYROGLOSSAL DUCT CYST; CYST OF PHARYNX OR NASOPHARYNX. These diagnoses are benign but can be highly locally aggressive and can become malignant.
- 2) 520.0 (Anodontia) moves from line 675 DENTAL CONDITIONS WHERE TREATMENT IS CHOSEN PRIMARILY FOR AESTHETIC CONSIDERATIONS to line 477 DENTAL CONDITIONS (EG. MISSING TEETH, PROSTHESIS FAILURE) Treatment: REMOVABLE PROSTHODONTICS (E.G. FULL AND PARTIAL DENTURES, RELINES) to allow coverage for dentures which has a very large impact on health and quality of life.

# Overview of Recommendations for Converting Lines to ICD-10-CM Sports Medicine Follow Up

*Specialty consultants:* Dr. Ryan Petering, Dr. Melissa Novak, Dr. Charles Webb

Recommendation requiring follow up from April, 2012 VBBS meeting:

The VbBS review the following recommendation at the April, 2012 meeting and felt that the line titles were not specific enough. HERC staff was requested to work with the sports medicine and orthopedic experts to either further refine the name or to create a guideline specifying what “significant” meant in these line titles. Drs. Alex Herzberg and Robert Orfaly have proposed the guideline below to accompany these lines:

## **RENAME LINES**

The current lines for joint injuries use Grade II and III to differentiate the upper line from the uncovered lower line for mild injuries. The Sports Medicine experts, as well as the Orthopedic experts, feel that these grading systems apply to only one type of injury on these lines (acromioclavicular joint sprain). They have recommended a name change for these lines to better represent the HERC intent to have more severe injuries only included on the upper, covered, lines.

Rename line 455 INTERNAL DERANGEMENT OF KNEE AND LIGAMENOUS DISRUPTIONS OF THE KNEE, ~~GRADE II AND III~~ POTENTIALLY RESULTING IN SIGNIFICANT INJURY/IMPAIRMENT

Rename line 406: DISRUPTIONS OF THE LIGAMENTS AND TENDONS OF THE ARMS AND LEGS, EXCLUDING THE KNEE, ~~GRADE II AND III~~ POTENTIALLY RESULTING IN SIGNIFICANT INJURY/IMPAIRMENT

## **GUIDELINE NOTE XXX SIGNIFICANT INJURIES TO LIGAMENTS AND TENDONS**

*Lines 406, 455*

Significant injuries to ligaments and/or tendons result in joint instability, weakness or mechanical interference with motion.

### Recommendations:

- 1) Rename lines as shown above
- 2) Adopt guideline note to apply to these lines as shown above

# Plastic Surgery ICD 10 Recommendations

## Follow Up

*Specialty consultants: Dr. Jennifer Murphy*

The VbBS reviewed the Plastic Surgery recommendations at the April 2012 meeting and requested follow up on one issue. Members requested clarification on the new peripheral nerve injury line, specifically on whether it related only to acute injury of motor nerves. Members also wanted clarification of what defines “acute” versus chronic. Suggested clarifications are shown in blue below.

### CREATE NEW LINES

Line XXX

Condition: ACUTE PERIPHERAL **MOTOR NERVE** AND DIGITAL NERVE INJURY

Treatment: SURGICAL THERAPY

ICD10: S74.00xA-S74.11x

CPT codes: CPT codes from line 531

Create a new line with diagnoses from lines 516 PERIPHERAL ENTHESOPATHIES  
Treatment: MEDICAL THERAPY and line 531 PERIPHERAL ENTHESOPATHIES  
Treatment: SURGICAL TREATMENT. The new line would be a surgical only line. The diagnoses on this line would stay on the current lines (516 and 531). Rationale: in the acute setting, urgent treatment can prevent lifelong complications and/or disability.

PLACED SENSORY NERVES ON LOWER LINES (535, 557) WITH THE EXCEPTION OF DIGITAL NERVES, WHICH REMAIN ON **ACUTE NERVE INJURY LINE**

S44.00xA-S44.42xA

S54.00xA-S54.22xA

S64.00xA-S64.498A

Codes S94.00xA-S94.22xA

The following guideline would apply to the new line

**GUIDELINE NOTE XXX ACUTE PERIPHERAL **MOTOR NERVE** AND DIGITAL NERVE INJURY**

Line XXX

Repair of acute (< 8 weeks) peripheral nerve injuries are included on line XXX.

Non-surgical medical care of these injuries are covered on line 535. Chronic nerve injuries are covered on line 557.

### Rescoring recommendations

Category 7

Impact on Healthy Life Years 4

Rationale: If you don't repair a nerve, you will have a residual defect. If upper extremity is desensate, will significantly impact functionality

Impact on Pain and Suffering 1

Population effects 0

Vulnerable 0

Tertiary Prevention 1

Effectiveness 3

Need for service 0.90

Net cost 2

Score 324

**Line 450**

# Overview of Recommendations for Converting Lines to ICD-10-CM Podiatry

*Specialty consultants: Dr. Andrew Schink; Dr. Clifford Mah; Dr. Chris Seufferling*

The Podiatry Workgroup recommendations were considered at the April, 2012 VbBS meeting. There were multiple outstanding issues and questions which HERC staff was asked to address with the help of the podiatry experts with orthopedic input as needed. Only 1 of the four outstanding issues has been reviewed in full for the May, 2012 meeting.

## **Preventive Foot Care for High Risk Patients**

**Issue 1:** The podiatry experts suggested moving certain deforming foot conditions to the preventive foot care line (Line 172) to allow treatment for the prevention of foot ulcers. The specific diagnoses proposed for movement included M20.1x (Hallux vulgus (acquired)—i.e.bunion), M20.3x (Hallux varus (acquired)), M20.4x (other hammer toes, acquired), M92.6x and M92.7x (juvenile osteochondrosis, ankle/foot), and L84 (corns and callosities). These diagnoses are currently on lines 565 or 618. Currently, line 172 has basic foot care treatments such as nail care. The experts proposed moving a variety of treatments for corns and calluses, surgical repair of foot deformities, etc.

The VbBS requested that HERC staff and the podiatry experts create an evidence review regarding the effectiveness of preventive foot care for high risk patients which would include repair of deforming foot lesions such as bunions

## **GUIDELINES/CODE PLACEMENT CHANGES**

Add coverage for high risk patients for certain currently uncovered diagnoses of foot conditions to a covered line, with a guideline.

- a. Add M20.1x (Hallux vulgus (acquired)—i.e.bunion), M20.3x (Hallux varus (acquired)), M20.4x (other hammer toes, acquired), M92.6x and M92.7x (juvenile osteochondrosis, ankle/foot), and L84 (corns and callosities) to line 172 PREVENTIVE FOOT CARE and keep on line 565 DEFORMITIES OF FOOT or 618 CORNS AND CALLUSES with a guideline as noted below
  - i. Add CPT codes 11055-11057 (paring or cutting of benign hyperkeratotic lesion) to line 172 to allow treatment of corns and calluses
  - ii. Add CPT codes 27612,27690-27692,28100-28011,28050-28054, 28070-28072,28086-28092,28110-28124,28126-28160,28200-28315, 28340-28341,28360,28705-28760,29750 to line 172 to allow treatment of hallus vulgus and varus, and hammer toes. These are surgical repair codes.
  - iii. Add office visit CPT codes 98966-98969,99051,99060,99070,99078,99201-99360,99366,99374,99375,99379-99444,99468-99480,99605-99607 to line 172
  - iv. Note: line 172 currently has only a very limited set of CPT codes involving nail care

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- b. Create a new guideline allowing coverage of certain diagnoses for patients at high risk of developing foot ulcers

## **GUIDELINE XXX PODIATRIC PROCEDURES FOR PATIENTS AT HIGH RISK FOR DEVELOPING FOOT ULCERS**

*Lines: 172, 565, 618*

ICD-10 codes M20.1x [hallux valgus (acquired)], M20.3x [Hallux varus (acquired)], M20.4x (other hammer toes, acquired), M92.6x and M92.7x (juvenile osteochondrosis, ankle/foot), and L84 (corns and callosities) are included on line 172 PREVENTIVE FOOT CARE IN HIGH RISK PATIENTS only for patients at high risk of developing foot ulcers, defined as patients with 1) diabetes, 2) peripheral vascular disease, 3) peripheral neuropathy or 4) history of foot ulcer. For non-high risk patients, these diagnoses are located on lines 565 DEFORMITIES OF FOOT or 618 CORNS AND CALLUSES.

### **Current line**

#### **Line: 172**

Condition: PREVENTIVE FOOT CARE IN HIGH RISK PATIENTS (See Guideline Note 76)

Treatment: MEDICAL AND SURGICAL TREATMENT OF TOENAILS AND HYPERKERATOSES OF FOOT

ICD-9: 250.60-250.73,356.0-356.9,357.2,357.5,440.20-440.29,443.1

CPT: 11719-11732,11750

HCPCS: G0245-G0247

Note: the following review focused on diabetic patients, as there is the most literature available in this area.

### Evidence review

#### *Major guidelines*

##### **1) NICE 2004**

- a. Recommendations for care of diabetic patients with high risk feet
  - i. Yearly to monthly foot inspection (depending on degree of risk)
  - ii. Vascular assessment and consideration for revascularization
  - iii. Foot care education
  - iv. Specialist footwear and insoles
  - v. Skin and nail care
  - vi. Surgical correction of deformities not mentioned
  - vii. Most of the above recommendations are level "D" other than regular foot inspections (level A)

##### **2) SIGN 2010**

- a. Diabetic patients at high risk of ulceration should receive foot care education (level B), custom footwear and/or insoles should be used to reduce callous severity and ulcer recurrence (level B)
- b. Annual screening and referral to podiatry when appropriate should be offered to all high risk diabetic patients
- c. Active ulcers should be treated with debridement and pressure relief using casting/padding, etc.

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## 3) ADA 2011

- a. For all patients with diabetes, perform an annual comprehensive foot examination to identify risk factors predictive of ulcers and amputations. The foot examination should include inspection, assessment of foot pulses, and testing for loss of protective sensation (LOPS) (10-g monofilament plus testing any one of: vibration using 128-Hz tuning fork, pinprick sensation, ankle reflexes, or vibration perception threshold). (B)
- b. Provide general foot self-care education to all patients with diabetes. (B)
- c. A multidisciplinary approach is recommended for individuals with foot ulcers and high-risk feet, especially those with a history of prior ulcer or amputation. (B)
- d. Refer patients who smoke, have loss of protective sensation and structural abnormalities, or have history of prior lower-extremity complications to foot care specialists for ongoing preventive care and life-long surveillance. (C)

## *Review articles*

- 1) **Cochrane 2011**--review of complex interventions for prevention of diabetic foot ulcers
  - a. N=5 RCT
  - b. Interventions included education, intensive and comprehensive complex interventions
  - c. All 5 RCTs at high risk for bias
  - d. Authors' conclusions: There is no high-quality research evidence evaluating complex interventions for preventing diabetic foot ulceration and insufficient evidence of benefit.
- 1) **Lavery 2011**—review of elective surgery to reduce deformities in reduction in diabetic ulceration
  - a. Elective surgery to reduce the deformity in hallux rigidus, hammertoe and equines of the ankle has been shown to be a safe and effective way to improve wound healing of recalcitrant ulcer and to reduce the risk of reulceration
  - b. Little high level evidence to guide patient selection or to compare clinical outcomes
  - c. All studies included in review appear to be small case series
  - d. "Most patients who are candidates for elective surgery have failed all other treatment approaches."
- 2) **Kravitz 2007**—review of treatment of diabetic foot ulcers
  - a. Deformity reduction can be performed in response to a current ulcer or a history of previous ulceration. It may also serve as prophylactic surgery to decrease the probability of developing a future pressure-induced wound. It is performed at a site consistent with a Wagner grade 0 or University of Texas Health Center grade A-034,43 ulcer and may involve intervention for deformities such as a hammertoe or bunion.
  - b. Prophylactic surgery may be beneficial when treating a younger, healthier patient with diabetes to reduce the risk of developing

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open wounds in the future. As the patient matures and general health diminishes, the risk of complications from surgery for these deformities increases.

- c. The literature supports the conclusion that diabetes is not a contraindication for prophylactic foot surgery and is especially worth considering for those patients who cannot be accommodated by footwear modifications and related orthoses.

## Summary:

There is moderate to good evidence for foot exams, referral to podiatry, use of padding or other shoe wear interventions for the prevention of ulcers in diabetic patients. There is minimal evidence for elective surgery for the prevention of foot ulcers in diabetic patients.

## Recommendation:

- 1) Option 1: Do not move deforming foot conditions to the preventive foot care line
- 2) Option 2: Move deforming foot conditions to the preventive foot care line (172) with services limited to podiatry visits
  - a. Will need to apply the guideline as below
  - b. Do not add surgical procedures to the line
  - c. Add M20.1x (Hallux valgus (acquired)—i.e.bunion), M20.3x (Hallux varus (acquired)), M20.4x (other hammer toes, acquired), M92.6x and M92.7x (juvenile osteochondrosis, ankle/foot), and L84 (corns and callosities) to line 172 PREVENTIVE FOOT CARE and keep on line 565 DEFORMITIES OF FOOT or 618 CORNS AND CALLUSES with a guideline as noted below
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    - ii. Add office visit CPT codes 98966-98969, 99051, 99060, 99070, 99078, 99201-99360, 99366, 99374, 99375, 99379-99444, 99468-99480, 99605-99607 to line 172
    - iii. Note: line 172 currently has only a very limited set of CPT codes involving nail care

## **GUIDELINE XXX PODIATRIC PROCEDURES FOR PATIENTS AT HIGH RISK FOR DEVELOPING FOOT ULCERS**

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# Type 2 diabetes

## Prevention and management of foot problems\*

\* Update of the guideline entitled *Clinical Guidelines and Evidence Review for Type 2 Diabetes: Prevention and Management of Foot Problems* published by the Royal College of General Practitioners in 2000

**Clinical Guideline 10**

January 2004

Developed by the National Collaborating  
Centre for Primary Care

## Clinical Guideline 10

### Type 2 diabetes

Prevention and management of foot problems

**Issue date:** January 2004

This document, which contains the Institute's full guidance on the prevention and management of foot problems in people with type 2 diabetes, is available from the NICE website ([www.nice.org.uk/CG010NICEguideline](http://www.nice.org.uk/CG010NICEguideline)).

An abridged version of this guidance (a 'quick reference guide') is also available from the NICE website ([www.nice.org.uk/CG010quickrefguide](http://www.nice.org.uk/CG010quickrefguide)). Printed copies of the quick reference guide can be obtained from the NHS Response Line: telephone 0870 1555 455 and quote reference number N0409.

Information for the Public is available from the NICE website or from the NHS Response Line (quote reference number N0410 for a version in English and N0411 for a version in English and Welsh).

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The quick reference guide for this guideline has been distributed to the following:

- Primary care trust (PCT) chief executives
- Local health board (LHB) chief executives
- NHS trust chief executives in England and Wales
- Strategic health authority chief executives in England and Wales
- Medical and nursing directors in England and Wales
- Clinical governance leads in England and Wales
- Audit leads in England and Wales
- NHS trust, PCT and LHB libraries in England and Wales
- Patient advice and liaison co-ordinators in England
- GP partners in England and Wales
- Practice nurses in England and Wales
- Podiatrists/chiropractors in England and Wales
- Consultant diabetologists and endocrinologists in England and Wales
- Tissue viability nurses in England and Wales
- Senior pharmacists and pharmaceutical advisors in England and Wales
- NHS Director Wales
- Chief Executive of the NHS in England
- Chief Medical, Nursing and Pharmaceutical Officers in England and Wales
- Medical Director & Head of NHS Quality – Welsh Assembly Government
- Commission for Health Improvement
- NHS Clinical Governance Support Team
- Patient advocacy groups
- Representative bodies for health services, professional organisations and statutory bodies, and the Royal Colleges

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#### **This guidance is written in the following context:**

This guidance represents the view of the Institute, which was arrived at after careful consideration of the evidence available. Health professionals are expected to take it fully into account when exercising their clinical judgement. The guidance does not, however, override the individual responsibility of health professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

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**116****Management of diabetes***A national clinical guideline*

Scottish Intercollegiate Guidelines Network

# **Management of diabetes**

A national clinical guideline



March 2010

# 1 Introduction

## 1.1 THE NEED FOR A GUIDELINE

Diabetes mellitus is a major cause of morbidity and mortality in Scotland and worldwide, with an increasing prevalence. In 2009 there were around 228,000 people registered as having diabetes in Scotland, an increase of 3.6% from the preceding year.<sup>1</sup> This increase relates, in part, to the increasing age of the population, an increase in obesity and also perhaps to increasing survival of those with diabetes.

Twenty years ago the St Vincent declaration aimed to decrease blindness, end-stage renal failure, amputation and cardiovascular disease in those with diabetes and to improve the outcome of pregnant mothers who have diabetes. Since that time there has been a great increase in evidence showing that many diabetic outcomes can be influenced by appropriate therapies. Part of this evidence base was reviewed in the previous SIGN guideline on management of diabetes (SIGN 55) published in 2001.<sup>2</sup> New clinical evidence has been published since then and has resulted in the need for this selective update. Implementing the evidence described in this guideline will have a positive effect on the health of people with diabetes.

### 1.1.1 UPDATING THE EVIDENCE

Since the publication of SIGN 55, new evidence has been published in many areas covered by the recommendations in that guideline. Where this evidence was thought likely to significantly change either the content or grading of these recommendations, it has been identified and reviewed. Where new evidence does not update existing recommendations and where no new evidence was identified to support an update, the guideline text and recommendations are reproduced verbatim from SIGN 55. The original supporting evidence was not re-appraised by the current guideline development group. A number of new areas that were not considered in SIGN 55 have also been incorporated into this selective update, including entirely new sections on glucose-lowering agents for people with type 2 diabetes and psychosocial factors (see section 1.2.3).

A Cost and Resource Impact Assessment report developed by NHS QIS is available as a companion document to this guideline. This document reports the national costs to NHSScotland of implementing recommendations that are estimated to have a net additional cost of £5 million or more to introduce.

## 1.2 REMIT OF THE GUIDELINE

### 1.2.1 OVERALL OBJECTIVES

This guideline provides recommendations based on current evidence for best practice in the management of diabetes. For people with type 1 and type 2 diabetes recommendations for lifestyle interventions are included, as are recommendations for the management of cardiovascular, kidney and foot diseases. Guidance for all people with diabetes to prevent visual impairment, and specific advice for pregnant women with diabetes is provided. A new section on the management of psychosocial issues, drawn partially from evidence originally contained in other sections, is now included. Finally, a section on the management of type 1 diabetes and a new section on glucose-lowering therapies in people with type 2 diabetes have been added. Implementation of these recommendations will encourage the provision and development of high quality care for people with diabetes. It should also inform the development of measureable standards of diabetes care. Prevention of diabetes and pre-diabetes are not covered.

## 1.2.2 TARGET USERS OF THE GUIDELINE

This guideline will mainly be of interest to all healthcare professionals involved in the care of people with diabetes. The target users are, however, much broader than this, and include people with diabetes, their carers and those who interact with people with diabetes outside of the NHS. It will also be of interest to those planning the delivery of services in NHSScotland and beyond.

## 1.2.3 SUMMARY OF UPDATES TO THE GUIDELINE, BY SECTION

2	Key recommendations	New
3	Lifestyle management	Updated
4	Psychosocial factors	Updated
5	Management of type 1 diabetes	Updated
6	Pharmacological management of glycaemic control in people with type 2 diabetes	New
7	Management of diabetes in pregnancy	Updated
8	Management of diabetic cardiovascular disease	Updated
9	Management of kidney disease in diabetes	Updated
10	Prevention of visual impairment	Updated
11	Management of diabetic foot disease	Minor update
12	Provision of information	New

## 1.3 DEFINITIONS

Diabetes mellitus is defined as a metabolic disorder of multiple aetiology characterised by chronic hyperglycaemia with disturbances of carbohydrate, protein and fat metabolism resulting from defects in insulin secretion, insulin action, or both. The clinical diagnosis of diabetes is often indicated by the presence of symptoms such as polyuria, polydipsia, and unexplained weight loss, and is confirmed by measurement of abnormal hyperglycaemia.<sup>3</sup>

The World Health Organization (WHO)<sup>3</sup> advises that the range of blood glucose indicative of diabetes mellitus is as follows:

- fasting venous plasma glucose (FPG)  $\geq 7.0$  mmol/l; or
- venous plasma glucose  $\geq 11.1$  mmol/l at two hours after a 75 g oral glucose load (oral glucose tolerance test (OGTT)).

The fact that glycated haemoglobin (HbA1c) reflects average plasma glucose over the previous two to three months in a single measure which can be performed at any time of the day and does not require any special preparation such as fasting has made it a key measure for assessing glycaemic control in people with established diabetes. In 2006 the WHO considered HbA1c as a candidate diagnostic tool for diabetes. They reported that HbA1c measurement is not widely available in many countries throughout the world and there are aspects of its measurement which are problematic.<sup>3</sup> The HbA1c result is influenced by several factors including anaemia, abnormalities of haemoglobin, pregnancy and uraemia. Some of these factors may be a bigger problem in under-resourced countries due to a higher prevalence of anaemia and of haemoglobinopathies. At the time of publication HbA1c was not recommended as a diagnostic test for diabetes, but there is ongoing work to standardise HbA1c reporting worldwide which may lead to further developments in the role of HbA1c.

*\*Impaired Glucose Tolerance (IGT) is a stage of impaired glucose regulation (FPG <7.0 mmol/l and OGTT 2 hour value  $\geq 7.8$  mmol/l but <11.1mmol/l).*

*Impaired Fasting Glucose (IFG) has been introduced to classify individuals who have fasting glucose values above the normal range but below those diagnostic of diabetes. (fasting plasma glucose  $\geq 6.1$  mmol/l but <7.0 mmol/l).*

*IGT and IFG are not clinical entities in their own right, but rather risk categories for cardiovascular disease and/or future diabetes.*

Until June 2009 glycated haemoglobin in the UK was reported in Diabetes Control and Complication Trial (DCCT)-aligned format with the units being the proportion of total haemoglobin that is glycosylated expressed as a percentage. While UK laboratories standardised measures of HbA1c so that results were aligned with the analyses used in the DCCT, laboratories in other countries did not necessarily do so meaning that HbA1c values could not be accurately compared worldwide. Furthermore, since the DCCT, the methods used for measuring HbA1c have been found to have interferences yielding a falsely high result. A new and more accurate standard published by the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) replaces the DCCT-aligned calibration for HbA1c and reports results in mmol/mol.<sup>4</sup> To facilitate the changeover of measurements both formats will be reported in parallel from June 2009 to June 2011, and the IFCC format only thereafter (see Annex 2). In this guideline, HbA1c values will be presented as DCCT-aligned values in text or recommendations with IFCC calibration in brackets, eg HbA1c = 7.5% (59 mmol/mol).

## 1.4 STATEMENT OF INTENT

This guideline is not intended to be construed or to serve as a standard of care. Standards of care are determined on the basis of all clinical data available for an individual case and are subject to change as scientific knowledge and technology advance and patterns of care evolve. Adherence to guideline recommendations will not ensure a successful outcome in every case, nor should they be construed as including all proper methods of care or excluding other acceptable methods of care aimed at the same results. The ultimate judgement must be made by the appropriate healthcare professional(s) responsible for clinical decisions regarding a particular clinical procedure or treatment plan. This judgement should only be arrived at following discussion of the options with the patient, covering the diagnostic and treatment choices available. It is advised, however, that significant departures from the national guideline or any local guidelines derived from it should be fully documented in the patient's case notes at the time the relevant decision is taken.

### 1.4.1 PATIENT VERSION

A patient version of this guideline is available from the SIGN website, [www.sign.ac.uk](http://www.sign.ac.uk)

### 1.4.2 PRESCRIBING OF LICENSED MEDICINES OUTWITH THEIR MARKETING AUTHORISATION

Recommendations within this guideline are based on the best clinical evidence. Some recommendations may be for medicines prescribed outwith the marketing authorisation (product licence). This is known as 'off label' use. It is not unusual for medicines to be prescribed outwith their product licence and this can be necessary for a variety of reasons.

Generally the unlicensed use of medicines becomes necessary if the clinical need cannot be met by licensed medicines; such use should be supported by appropriate evidence and experience.<sup>5</sup>

Medicines may be prescribed outwith their product licence in the following circumstances:

- for an indication not specified within the marketing authorisation
- for administration via a different route
- for administration of a different dose.

'Prescribing medicines outside the recommendations of their marketing authorisation alters (and probably increases) the prescribers' professional responsibility and potential liability. The prescriber should be able to justify and feel competent in using such medicines.'<sup>5</sup>

Any practitioner following a SIGN recommendation and prescribing a licensed medicine outwith the product licence needs to be aware that they are responsible for this decision, and in the event of adverse outcomes, may be required to justify the actions that they have taken.

Prior to prescribing, the licensing status of a medication should be checked in the current version of the British National Formulary (BNF).

#### 1.4.3 ADDITIONAL ADVICE TO NHSSCOTLAND FROM NHS QUALITY IMPROVEMENT SCOTLAND AND THE SCOTTISH MEDICINES CONSORTIUM

NHS QIS processes multiple technology appraisals (MTAs) for NHSScotland that have been produced by the National Institute for Health and Clinical Excellence (NICE) in England and Wales.

The Scottish Medicines Consortium (SMC) provides advice to NHS Boards and their Area Drug and Therapeutics Committees about the status of all newly licensed medicines and any major new indications for established products.

SMC advice and NHS QIS validated NICE MTAs relevant to this guideline are summarised in the section on implementation.

## Guideline Summary NGC-8221

### Guideline Title

Standards of medical care in diabetes. VI. Prevention and management of diabetes complications.

### Bibliographic Source(s)

American Diabetes Association (ADA). Standards of medical care in diabetes. VI. Prevention and management of diabetes complications. *Diabetes Care* 2011 Jan;34(Suppl 1):S27-38.

### Guideline Status

**Note:** This guideline has been updated. The National Guideline Clearinghouse (NGC) is working to update this summary.

### FDA Warning/Regulatory Alert

**Note from the National Guideline Clearinghouse:** This guideline references a drug(s) for which important revised regulatory and/or warning information has been released.

- [March 1, 2012 – Statins and HIV or Hepatitis C drugs](#) : The U.S. Food and Drug Administration (FDA) notified healthcare professionals of updates to the prescribing information concerning interactions between protease inhibitors and certain statin drugs. Protease inhibitors and statins taken together may raise the blood levels of statins and increase the risk for muscle injury (myopathy). The most serious form of myopathy, called rhabdomyolysis, can damage the kidneys and lead to kidney failure, which can be fatal.
- [February 28, 2012 – Statin drugs](#) : The U.S. Food and Drug Administration (FDA) has approved important safety label changes for the class of cholesterol-lowering drugs known as statins. The changes include removal of routine monitoring of liver enzymes from drug labels. Information about the potential for generally non-serious and reversible cognitive side effects and reports of increased blood sugar and glycosylated hemoglobin (HbA1c) levels has been added to the statin labels. The lovastatin label has been extensively updated with new contraindications and dose limitations when it is taken with certain medicines that can increase the risk for muscle injury.
- [November 9, 2011 – Trilipix \(fenofibric acid\)](#) : The U.S. Food and Drug Administration (FDA) notified healthcare professionals the cholesterol-lowering medicine Trilipix (fenofibric acid) may not lower a patient's risk of having a heart attack or stroke. FDA reviewed the data from the Action to Control Cardiovascular Risk in Diabetes (ACCORD) Lipid trial. The ACCORD Lipid trial found no significant difference in the risk of experiencing a major adverse cardiac event between the group treated with fenofibrate plus simvastatin compared with simvastatin alone. Information from the trial has been added to the Important Limitations of Use and Warnings and Precautions sections of the Trilipix physician label and to the patient Medication Guide.
- [June 8, 2011 – Zocor \(simvastatin\)](#) : The U.S. Food and Drug Administration (FDA) notified healthcare professionals that it is recommending limiting the use of the highest approved dose of the cholesterol-lowering medication simvastatin (80 mg) because of increased risk of muscle damage. FDA is requiring changes to the simvastatin label to add new contraindications (should not be used with certain medications) and dose limitations for using simvastatin with certain medicines.

### Scope

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#### Disease/Condition(s)

Complications of diabetes mellitus, including:

- Cardiovascular disease (CVD)
  - Hypertension
  - Dyslipidemia
  - Coronary heart disease (CHD)
- Nephropathy
- Retinopathy
- Neuropathy
  - Distal symmetric polyneuropathy (DPN)
  - Autonomic neuropathy
- Foot ulceration

#### Guideline Category

Counseling

Diagnosis

# Complex interventions for preventing diabetic foot ulceration (Review)

Dorresteijn JAN, Kriegsman DMW, Valk GD



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<http://www.thecochranelibrary.com>



[Intervention Review]

# Complex interventions for preventing diabetic foot ulceration

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**Editorial group:** Cochrane Wounds Group.

**Publication status and date:** New search for studies and content updated (no change to conclusions), published in Issue 10, 2011.

**Review content assessed as up-to-date:** 28 July 2011.

**Citation:** Dorresteijn JAN, Kriegsman DMW, Valk GD. Complex interventions for preventing diabetic foot ulceration. *Cochrane Database of Systematic Reviews* 2010, Issue 1. Art. No.: CD007610. DOI: 10.1002/14651858.CD007610.pub2.

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## ABSTRACT

### Background

Ulceration of the feet, which can lead to the amputation of feet and legs, is a major problem for people with diabetes mellitus, and can cause substantial economic burden. Single preventive strategies have not been shown to reduce the incidence of foot ulceration to a significant extent. Therefore, in clinical practice, preventive interventions directed at patients, healthcare providers and/or the structure of health care are often combined (complex interventions).

### Objectives

To assess the effectiveness of complex interventions in the prevention of foot ulcers in people with diabetes mellitus compared with single interventions, usual care or alternative complex interventions. A complex intervention is defined as an integrated care approach, combining two or more prevention strategies on at least two different levels of care: the patient, the healthcare provider and/or the structure of health care.

### Search strategy

For this first update we searched the Cochrane Wounds Group Specialised Register (searched 16 June 2011), the Cochrane Central Register of Controlled Trials (CENTRAL) (*The Cochrane Library* 2011, Issue 2), Ovid MEDLINE (1948 to June Week 2 2011 and In-Process & Other Non-Indexed Citations, 15 June 2011), Ovid EMBASE (1980 to 2011 Week 16) and EBSCO CINAHL (1982 to 10 June 2011).

### Selection criteria

Prospective randomised controlled trials (RCTs) which compared the effectiveness of combinations of preventive strategies, not solely patient education, for the prevention of foot ulcers in people with diabetes mellitus, with single interventions, usual care or alternative complex interventions.

### Data collection and analysis

Two review authors were assigned to independently select studies, to extract study data and to assess risk of bias of included studies, using predefined criteria.

# Effectiveness and safety of elective surgical procedures to improve wound healing and reduce re-ulceration in diabetic patients with foot ulcers

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## Summary

The objective is to evaluate the effectiveness and safety of surgical off-loading to heal diabetic foot ulcers and prevent ulcer recurrence. Usually, structural foot deformities such as hallux rigidus, hammertoe deformities and equinus of the ankle contribute to abnormal pressure and shear forces and non-healing foot ulcers. Elective surgery to remove the deformity and restore joint mobility has been shown to be safe and effective to improve wound healing of recalcitrant ulcer and to reduce the risk of re-ulceration. Unfortunately, there is very little high-level evidence to help guide patient selection or to compare clinical outcomes. Copyright © 2012 John Wiley & Sons, Ltd.

**Keywords** ulcer; amputation; diabetes; neuropathy; prevention

## Aetiology of foot ulcers

Ulceration is a major risk factor for lower extremity amputation. Foot ulcers precede lower extremity diabetic amputations more than 80% of the time [1]. So, healing ulcers and preventing re-ulceration should be a main focus in amputation prevention. The most frequent factors that contribute to ulceration are unrecognized repetitive injury, peripheral sensory neuropathy with loss of protective sensation, limited joint mobility and structural foot deformity [2]. Structural foot deformities such as hallux valgus and hallux rigidus are associated with ulceration of the great toe and first metatarsal. Equinus deformity, limited ankle joint dorsiflexion, is associated with ulcers on the ball of the foot; and hammertoe deformities are associated with ulcers on the tip of the toes, on the dorsum of the toes and between the toes.

Diabetic foot ulcers are difficult to heal, and once healed, there is a high rate of ulcer recurrence. Conventional measures to heal diabetic foot ulcers are often ineffective. Margolis *et al.* conducted a meta-analysis of the control arms of randomized clinical studies in which patients received 'standard therapy'. Only 24% and 31% of wounds healed in 12 and 20 week of studies, respectively [3]. Ulcers that do not respond to standard therapies such as debridement, vascular assessment, infection control, pressure reduction and local wound care should be assessed for uncorrected pressure and shear forces at the ulcer site as a result of structural foot deformity or limited joint mobility.

## Ulcer recurrence with standard care

After diabetic foot ulcers heal, patients experience a high rate of re-ulceration. The high rate of recurrence is often because deformity and limited joint

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# extra

## The Treatment of Diabetic Foot Ulcers: Reviewing the Literature and a Surgical Algorithm



**CATEGORY 1**

1 Credit



**ANCC/AACN**

3.5 Contact Hours

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Dr Kravitz has disclosed that he was a member of the speaker's bureau and a consultant/advisor for Ross-Abbott; and is/was a member of the speaker's bureau for Healthpoint Tissue Management, Pfizer Pharmaceutical, and Medline Industries, Inc. Dr McGuire has disclosed that he is/was a recipient of grant/research funding from King Pharmaceutical; he is/was a member of the speaker's bureau for Johnson & Johnson, Healthpoint; and he is a member of the speaker's bureau for Pfizer. Dr Sharma has disclosed that he has no significant relationships or financial interests in any commercial companies that pertain to this educational activity.

Lippincott CME Institute, Inc. has identified and resolved all faculty conflicts of interest regarding this educational activity.

### PURPOSE

To provide an overview of the literature related to the treatment of diabetic foot ulcers.

### TARGET AUDIENCE

This continuing education activity is intended for physicians and nurses with an interest in wound care.

### OBJECTIVES

After reading this article and taking this test, the reader should be able to:

1. Outline the management goals and assessment of diabetic foot ulcers.
2. Describe the surgical treatment and wound care of diabetic foot ulcers.

ADV SKIN WOUND CARE 2007;20:227-37; quiz 238-39.

The primary goal in the treatment of diabetic foot ulcers is to achieve closure as quickly as possible. Prompt resolution of a foot ulcer and initiation of interventions

to reduce the rate of recurrence can also reduce the risk of a secondary infection and the risk of lower-extremity amputation in patients with diabetes.<sup>1-5</sup>

# Dermatology Recommendations for ICD-10

Specialty consultants: Tavelli, Baker, and Simpson

## CREATE NEW LINES

### 1) **MODERATE/SEVERE INFLAMMATORY SKIN DISEASE**

ICD 10 codes to be placed on this line for the following conditions:

- a. Psoriasis
- b. Atopic dermatitis
- c. Lichen planus
- d. Darier disease (inherited epidermal disorder)
- e. Pityriasis rubra pilaris
- f. Discoid lupus

#### **GUIDELINE NOTE XX**

Severe ~~psoriasis~~ inflammatory skin disease is defined as having functional impairment (e.g. inability to use hands or feet for activities of daily living, or significant facial involvement preventing normal social interaction) AND one or more of the following:

1. At least 10% of body surface area involved; and/or
2. Hand, foot or mucous membrane involvement.

Biologics are only covered on this line for the indication of moderate/severe plaque psoriasis; after documented failure of first line agents and second line agents. First line agents include topical agents, oral retinoids, phototherapy and methotrexate. Use of other systemic agents should be limited to those who fail, or have contraindications to, or do not have access to first line agents.

**Ranking recommendations:** (moderate severe psoriasis used to be 134 (was with pyoderma)  
Category 7  
Impact on Healthy Life Years 3 – QOL, these people suffer badly, affects what they do every day, disabling/disfiguring, if have psoriasis on palms/soles, can't work at all  
Impact on pain and suffering 3  
Population effects 0  
Vulnerable populations 0  
Tertiary prevention 0  
Effectiveness 3  
Need for treatment 0.9  
Net cost 2  
Score 324 which is Line 450

### 2) **ACNE CONGLOBATA (SEVERE CYSTIC ACNE)** (derived from line 545 Cystic Acne)

- a. ICD 10 codes: Includes acne conglobata only

**GUIDELINE NOTE XX** Acne conglobata is only included on line XX if it involves recurrent abscesses or communicating sinuses.

# Dermatology Recommendations for ICD-10

Category 7.  
Impact on Healthy Life Years 2  
Impact on Pain and Suffering 3  
Population effects 0  
Vulnerable populations 0  
Tertiary prevention 2 (high likelihood of decrease permanent disfigurement/scarring; possible decrease in suicide risk)  
Effectiveness 4  
Need for treatment 1  
Net cost 3  
SCORE 560, PUTS ON LINE 410

## DELETE LINES

134 PYODERMA; MODERATE/SEVERE PSORIASIS MEDICAL THERAPY  
Pyoderma codes move to cellulitis line 214. Psoriasis divided into mild and moderate/severe disease

## GUIDELINES

Delete current moderate/severe psoriasis guideline to New moderate/severe inflammatory skin disease guideline as above.

## RENAME LINES

- 1) 545 ~~CYSTIC ACNE~~ ACNE; ROSACEA
  - a. Moved rosacea codes from 530 to this line
  - b. Moved out hydradenitis suppurative to its own line

## CODE MOVEMENT WORTH REVIEW

### Moved to Diagnostic files

Move Q82.8 Other specified congenital malformations of skin to both higher severe line and 688.

New coding specification

Q82.8 is only included [on the higher line] for the diagnosis of Keratosis follicularis that meets the severity guideline criteria. Other diseases included within Q82.8 are not covered on this line.

## Quick reference guide

# Etanercept and efalizumab for the treatment of adults with psoriasis

The European Medicines Agency (EMA), the European Union body which is responsible for monitoring the safety of medicines, has withdrawn the marketing authorisation for Merck Serono's psoriasis drug efalizumab (Raptiva). Therefore, NICE has withdrawn its guidance on the use of efalizumab for the treatment of adults with psoriasis.

The information in this quick reference guide is the original guidance developed in 2006. Please note that only the guidance on the use of etanercept for the treatment of adults with psoriasis now remains in force.

## 1 Guidance

- 1.1 Etanercept, within its licensed indications, administered at a dose not exceeding 25 mg twice weekly is recommended for the treatment of adults with plaque psoriasis only when the following criteria are met.
- The disease is severe as defined by a total Psoriasis Area Severity Index (PASI) of 10 or more **and** a Dermatology Life Quality Index (DLQI) of more than 10.
  - The psoriasis has failed to respond to standard systemic therapies including ciclosporin, methotrexate and PUVA (psoralen and long-wave ultraviolet radiation); or the person is intolerant to, or has a contraindication to, these treatments.
- 1.2 Etanercept treatment should be discontinued in patients whose psoriasis has not responded adequately at 12 weeks. Further treatment cycles are not recommended in these patients. An adequate response is defined as either:
- a 75% reduction in the PASI score from when treatment started (PASI 75) or
  - a 50% reduction in the PASI score (PASI 50) and a five-point reduction in DLQI from when treatment started.
- 1.3 Efalizumab, within its licensed indications, is recommended for the treatment of adults with plaque psoriasis under the circumstances detailed in section 1.1 only if their psoriasis has failed to respond to etanercept or they are shown to be intolerant of, or have contraindications to, treatment with etanercept.
- 1.4 Further treatment with efalizumab is not recommended in patients unless their psoriasis has responded adequately at 12 weeks as defined in section 1.2.
- 1.5 It is recommended that the use of etanercept and efalizumab for psoriasis should be initiated and supervised only by specialist physicians experienced in the diagnosis and treatment of psoriasis. If a person has both psoriasis and psoriatic arthritis their treatment should be managed by collaboration between a rheumatologist and a dermatologist.
- 1.6 Patients who have begun a course of treatment with efalizumab at the date of publication of this guidance should have the option of continuing to receive treatment until the patients and their clinicians consider it is appropriate to stop.

## NICE technology appraisal guidance 103

### This guidance is written in the following context

This guidance represents the view of the Institute, which was arrived at after careful consideration of the available evidence. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. This guidance does not, however, override the individual responsibility of healthcare professionals to make appropriate decisions in the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

## 2 Implementation

NICE has developed tools to help organisations implement this guidance (listed below). These are available on our website ([www.nice.org.uk/TA103](http://www.nice.org.uk/TA103)).

- Costing report and costing template to estimate the savings and costs associated with implementation.

Suggestions for audit to measure compliance locally can be found in the full guidance (see 'Further information').

### Further information

#### Quick reference guide

This has been distributed to healthcare professionals working in the NHS in England and Wales (see [www.nice.org.uk/TA103distributionlist](http://www.nice.org.uk/TA103distributionlist)). It is available from [www.nice.org.uk/TA103quickrefguide](http://www.nice.org.uk/TA103quickrefguide)

For printed copies, phone NICE publications on 0845 003 7783 or email [publications@nice.org.uk](mailto:publications@nice.org.uk) (quote reference number N1090).

#### Full guidance

This contains the following sections:

- 1 Guidance
- 2 Clinical need and practice
- 3 The technologies
- 4 Evidence and interpretation
- 5 Implementation
- 6 Recommendations for further research
- 7 Related guidance
- 8 Review of guidance.

The full guidance also gives details of the Appraisal Committee and the sources of evidence considered. It is available from [www.nice.org.uk/TA103guidance](http://www.nice.org.uk/TA103guidance)

### 'Understanding NICE guidance'

Information for patients and carers is available from [www.nice.org.uk/TA103publicinfo](http://www.nice.org.uk/TA103publicinfo)

For printed copies, phone NICE publications on 0845 003 7783 or email [publications@nice.org.uk](mailto:publications@nice.org.uk) (quote reference number N1091).

### Related guidance

For information about NICE guidance that has been issued or is in development, see the website ([www.nice.org.uk](http://www.nice.org.uk)).

Etanercept and infliximab for the treatment of psoriatic arthritis. *NICE technology appraisal guidance no. 104* (2006). Available from [www.nice.org/TA104](http://www.nice.org/TA104)

# Consensus Guidelines for the Management of Plaque Psoriasis

Sylvia Hsu, MD; Kim Alexander Papp, MD, PhD; Mark G. Lebwohl, MD; Jerry Bagel, MD; Andrew Blauvelt, MD; Kristina Callis Duffin, MD; Jeffrey Crowley, MD; Lawrence F. Eichenfield, MD; Steven R. Feldman, MD, PhD; David F. Fiorentino, MD, PhD; Joel M. Gelfand, MD, MSCE; Alice B. Gottlieb, MD, PhD; Carmen Jacobsen, RN, MPH; Robert E. Kalb, MD; Arthur Kavanaugh, MD; Neil J. Korman, MD, PhD; Gerald G. Krueger, MD; Melissa A. Michelson, MD; Warwick Morison, MD; Christopher T. Ritchlin, MD, MPH; Linda Stein Gold, MD; Stephen P. Stone, MD; Bruce E. Strober, MD, PhD; Abby S. Van Voorhees, MD; Stefan C. Weiss, MD; Karolyn Wanat, MD; Bruce F. Bebo Jr, PhD

**T**he *Canadian Guidelines for the Management of Plaque Psoriasis* were reviewed by the entire National Psoriasis Foundation Medical Board and updated to include newly approved agents such as ustekinumab and to reflect practice patterns in the United States, where the excimer laser is approved for psoriasis treatment. Management of psoriasis in special populations is discussed. In the updated guidelines, we include sections on children, pregnant patients or pregnant partners of patients, nursing mothers, the elderly, patients with hepatitis B or C virus infections, human immunodeficiency virus–infected patients, and patients with malignant neoplasms, as well as sections on tumor necrosis factor blockers, elective surgery, and vaccinations.

*Arch Dermatol.* 2012;148(1):95-102

Psoriasis skin manifestations have a wide range of presentations. The manifestations can be severe and widespread with signs and symptoms that greatly affect the patients' quality of life. Psoriatic arthritis, which can be severe and debilitating, is also present in many patients. Finally,

psoriasis is associated with an increased risk of serious comorbidities, such as cardiovascular disease and the metabolic syndrome, that complicate management and increase the risk of early death.<sup>1</sup>

Inflammation driven by T cells is responsible for keratinocyte growth and angiogenesis in the psoriatic plaque.<sup>2</sup> Many of the newly introduced therapies for psoriasis were therefore devised to target T cells or their inflammatory mediators.<sup>3,4</sup> Indeed, many of the classic topical and systemic therapies and phototherapies also act at least in large part by interfering with this same immune response.

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## MANAGEMENT OF MODERATE TO SEVERE PLAQUE PSORIASIS

Definitions of moderate to severe psoriasis in the literature are varied and contradictory. Moderate psoriasis is commonly distinguished from milder forms of the disease on the basis of scores on 1 or more clinical metrics, such as the Psoriasis Area and Severity Index (PASI); the percentage of the body surface area affected; and the Dermatological Life Quality Index (eAppendix, chapter 3, Table 2; <http://www.archdermatol.com>). Although numerical cutoffs are necessary in clinical trial design, they have little value in daily prac-

## **Section 3**

### **New Discussion Items**

## Percutaneous Allergy Testing for Drug Sensitivities

Question: Should percutaneous allergy testing (CPT 95004, 95015) be covered for evaluation of drug allergies?

Question source: DMAP

Issue: DMAP has received multiple requests for pairing of percutaneous allergy testing for evaluation of allergies to presumed medications. Currently, no allergy testing is on line 113 POISONING BY INGESTION, INJECTION, AND NON-MEDICINAL AGENTS, which contains medication allergy diagnoses. Specifically, DMAP has requested that 995.17 (Other drug allergy) and 995.29 (Unspecified adverse effect of other drug, medicinal and biological) be paired with 95004, 95024, and 95075. 95010 also appears to be possibly appropriate to pair.

Most drug allergies are straightforward to diagnose: a patient has a rash or other reaction after being administered a medication. However, in some cases, the cause of the reaction is unclear. A 2002 American Family Physician review on allergy testing listed “Previous suspected systemic reaction to drug, and clinical indication for suspected drug“ as a major indication for allergy testing.

<b>CPT Code</b>	<b>Code Description</b>	<b>Current Lines</b>	<b>Recommendation</b>
95004	Percutaneous tests (scratch, puncture, prick) with allergenic extracts, immediate type reaction, including test interpretation and report by a physician, specify number of tests	11,236,234,338,575,55 3,554,585,594	Do not add to line 113, not specific for medications/drugs
95010	Percutaneous tests (scratch, puncture, prick) sequential and incremental, with drugs, biologicals or venoms, immediate type reaction, including test interpretation and report by a physician, specify number of tests	11,236,234,338,575,55 3,554,585,594	Add to line 113
95015	Intracutaneous (intradermal) tests, sequential and incremental, with drugs, biologicals, or venoms, immediate type reaction, including test interpretation and report by a physician, specify number of tests	11,236,234,338,575,55 3,554,585,594	Add to line 113
95024	Intracutaneous (intradermal) tests with allergenic extracts, immediate type reaction, including test interpretation and report by a physician, specify number of tests	11,236,234,338,575,55 3,554,585,594	Do not add to line 113, not specific for medications/drugs
95075	Ingestion challenge test (sequential and incremental ingestion of test items, eg, food, drug or other substance such as metabisulfite)	11,236,234,338,575,55 3,554,585,594	Add to line 113

Recommendation:

- 1) Add 95010, 95015 and 95075 to line 113

## **Unspecified Disorders of Nervous System**

Question: Should “Unspecified disorders of nervous system” (ICD-9 349.9) be a covered diagnosis?

Question source: Dr. John Sattenspiel, OHP Medical Director

Issue: Currently 249.9 (Unspecified disorders of the nervous system) is covered on the dysfunction lines (Lines 78, 318, 375, 407—our database also lists on Diagnostic List) where it pairs with a variety of treatments including OT and PT. There are no subdiagnoses for 349.9 listed in the ICD-9 coding texts.

From Dr. Sattenspiel:

We are seeing an uptick of requests for OT based on ‘sensory’ issues such as sensory processing disorder, sensory integration disorder, etc. While the literature implies these symptoms are attributable to underlying autism, ASD, and ADHD many of the requests are coming in with the dx of 349.9, CNS Disorder Unspecified, found on covered lines 78, 318, 375, and 407 where it pairs with OT services. I do not believe this is an appropriate use of the diagnostic code and beyond that am concerned that there is no objective evidence that ‘sensory diet’ training or any other of the OT modalities for addressing the condition are effective. We are routinely denying these services due to the lack of evidence of efficacy but would appreciate some support and/or guidance from the HSC

Recommendation:

- 1) Remove 349.9 from lines 78, 318, 375, 407 (Dysfunction Lines)
- 2) Advise DMAP to remove 349.9 from the Diagnostic Work Up file and place 349.9 on the Excluded List

## Amputation for Burns Resulting in Deep Necrosis

Question: Should amputation be a covered procedure for burns resulting in deep tissue necrosis?

Question source: DMAP, HERC staff

Issue: DMAP received a request for a finger amputation (CPT 26952) for treatment of deep necrosis of a finger resulting from a burn (ICD-9 944.41). Burns resulting in deep necrosis of tissue are found on line 64 BURN FULL THICKNESS GREATER THAN 10% OF BODY SURFACE. There are currently no amputation codes on this line, although all extremity burns resulting in deep tissue necrosis are on this line. HERC staff on reviewing this issue determined that many amputation codes should be considered for addition to this line.

Codes recommended for addition to line 64

<b>CPT code</b>	<b>Code Description</b>	<b>Current Lines</b>
25900	Amputation, forearm, through radius and ulna;	167,190,208,250,346,355
25905	Amputation, forearm, through radius and ulna; open, circular (guillotine)	167,190,208,250,346,355
25907	Amputation, forearm, through radius and ulna; secondary closure or scar revision	167,190,208,250,308,346
25909	Amputation, forearm, through radius and ulna; re-amputation	167,190,208,250,308,346
25915	Krukenberg procedure	208,250,308,346,355
25920	Disarticulation through wrist	190,208,250,308,346,355
25922	Disarticulation through wrist; secondary closure or scar revision	190,208,216,250,308,346
25924	Disarticulation through wrist; re-amputation	190,208,250,308,346
25927	Transmetacarpal amputation;	190,208,250,308,346,355
25929	Transmetacarpal amputation; secondary closure or scar revision	190,208,250,308,346
25931	Transmetacarpal amputation; re-amputation	190,208,250,308,346
26910	Amputation, metacarpal, with finger or thumb (ray amputation), single, with or without interosseous transfer	167,190,208,250,308,346,355
26951	Amputation, finger or thumb, primary or secondary, any joint or phalanx, single, including neurectomies; with direct closure	167,190,208,216,250,271,297,346,355,602
26952	Amputation, finger or thumb, primary or secondary, any joint or phalanx, single, including neurectomies; with local advancement flaps (V-Y, hood)	167,190,208,250,346,355
27888	Amputation, ankle, through malleoli of tibia and fibula (eg, Syme, Pirogoff type procedures), with plastic closure and resection of nerves	190,208,250,271,288,346,355,467
28800	Amputation, foot; midtarsal (eg, Chopart type procedure)	190,208,250,271,288,346,355
28805	Amputation, foot; transmetatarsal	190,208,250,271,288,346,355
28810	Amputation, metatarsal, with toe, single	190,208,216,250,271,288,346,355,410
28820	Amputation, toe; metatarsophalangeal joint	190,208,216,250,271,346,355,549
28825	Amputation, toe; interphalangeal joint	190,208,216,250,271,346,355,549

Recommendation:

- 1) Add above amputation codes for extremities to line 63

## Balloon Dilation of Intracranial Vasospasm

Question: should balloon dilation of intracranial vasospasm be a covered procedure for treatment of transient cerebral ischemia?

Question source: DMAP

Issue: DMAP has received a request to pair balloon dilation of intracranial vasospasm with 435.9 Unspecified transient cerebral ischemia. 435.9 is currently on line 440 TRANSIENT CEREBRAL ISCHEMIA; OCCLUSION/STENOSIS OF PRECEREBRAL ARTERIES WITHOUT OCCLUSION. The balloon dilation CPT codes (61640-61642) are currently located on line 201 SUBARACHNOID AND INTRACEREBRAL HEMORRHAGE/HEMATOMA; CEREBRAL ANEURYSM; COMPRESSION OF BRAIN and on the DMAP Excluded List in the HERC database.

Current List information:

61640 Balloon dilatation of intracranial vasospasm, percutaneous; initial vessel

61641 Balloon dilatation of intracranial vasospasm, percutaneous; each additional vessel in same vascular family (List separately in addition to code for primary procedure)

61642 Balloon dilatation of intracranial vasospasm, percutaneous; each additional vessel in different vascular family (List separately in addition to code for primary procedure).

Evidence

1) Evidence reviews

**a. NICE 2007**

- i. The evidence on the efficacy of endovascular stent insertion for intracranial atherosclerotic disease is currently inadequate and the procedure poses potentially serious safety concerns. Therefore, this procedure should only be used in the context of clinical research
- ii. No mention of balloon dilation without stent insertion

**b. SIGN 2008**

- i. Balloon dilation not mentioned as treatment modality
- c. No Cochrane reviews are available

2) Other policies

**a. BCBS 2011**

- i. Investigational in all cases

**b. Aetna 2011**

- i. Aetna considers percutaneous transluminal angioplasty, with or without stenting, of the intra-cranial arteries experimental and investigational for the prophylaxis or treatment of either of the following conditions and all other indications because its effectiveness for these indications has not been established:
  1. Atherosclerotic stenosis of intra-cranial arteries; *or*
  2. Cerebral vasospasm after aneurysmal subarachnoid hemorrhage

Recommendation:

1) Do not add coverage for balloon dilation for transient cerebral ischemia

- a. Do not add 61640-61642 to line 440
- b. Procedure is experimental

# Endovascular stent insertion for intracranial atherosclerotic disease

## 1 Guidance

- 1.1 The evidence on the efficacy of endovascular stent insertion for intracranial atherosclerotic disease is currently inadequate and the procedure poses potentially serious safety concerns. Therefore, this procedure should only be used in the context of clinical research including collecting data which should be submitted to a national register when available. Research should clearly define patient selection and be designed to provide outcome data based on follow-up of at least 2 years.

## 2 The procedure

### 2.1 Indications

- 2.1.1 Intracranial atherosclerotic disease (ICAD) is the narrowing or obstruction of arteries within the skull that supply the brain. It is caused by atheromatous plaques in the innermost layer of the arterial wall, called the endothelium. ICAD can lead to transient ischaemic attack (TIA), stroke or death, and is usually diagnosed in patients who have presented with a TIA or stroke.
- 2.1.2 In the first instance, ICAD is usually treated with antithrombotics, together with medication to control risk factors for atherosclerosis. Some patients may be suitable for treatment with extracranial to intracranial bypass surgery. Angioplasty without stent insertion may also be a treatment option.

### 2.2 Outline of the procedure

- 2.2.1 Under general or local anaesthetic, a catheter is introduced over a guidewire into the affected intracranial artery percutaneously. A balloon may be inflated within the narrowed portion of the artery to pre-dilate it before inserting a stent. It is possible to insert more than one stent or to treat more than one lesion in a treatment session.

### 2.3 Efficacy

- 2.3.1 The rate of successful stent deployment in the studies ranged from 90% to 100%.
- 2.3.2 In a case series of 104 patients treated with intracranial stenting, 72 (69%) had no recurrent ischaemic symptoms or TIA events during 6-month follow-up and 24 (23%) had no change in neurological symptoms.
- 2.3.3 In a case series of 45 patients, 4 of 43 patients were reported to have had strokes during 6-month follow-up (10%), 2 within 30 days of the procedure. TIA events were reported in 0% (0/40), 8% (2/26) and 10% (2/21) in three case series with a mean follow-up of 10 months, 2 months and 12 months, respectively.
- 2.3.4 In the case series of 104 patients, the degree of mean postprocedural stenosis was 18%, compared with 75% preprocedurally. In the remaining eight case series, mean postprocedural stenosis ranged from 3% to 32%, compared with 72% to 93% preprocedurally. In all patients in six of the nine case series, postprocedural stenosis was 30% or less (preprocedural stenosis not given).

## Interventional procedure guidance 233

This guidance represents the view of the Institute, which was arrived at after careful consideration of the available evidence. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. This guidance does not, however, override the individual responsibility of healthcare professionals to make appropriate decisions in the circumstances of the individual patient, in consultation with the patient and/or guardian or carer. Interventional procedures guidance is for healthcare professionals and people using the NHS in England, Wales, Scotland and Northern Ireland.

This guidance is endorsed by NHS QIS for implementation by NHSScotland.

- 2.3.5 Restenosis was defined as  $\geq 50\%$  stenosis of the target vessel in two studies, and was not defined in the other three studies which reported on rates of restenosis. Reported restenosis rates ranged between 5% and 22% in six case-series studies involving between 7 and 58 patients, and with a follow-up of between 2 and 10 months. For more details, refer to the 'Sources of evidence' section.
- 2.3.6 The Specialist Advisers considered this procedure to be lacking long-term efficacy data in relation to restenosis rates. They considered there to be uncertainty about which stenoses should be treated and about the best type of stent to place.

## 2.4 Safety

- 2.4.1 Reported rates of procedure-related mortality ranged from 0% to 5% in nine case series involving between 21 and 104 patients.
- 2.4.2 The systematic review assessing 79 studies of 1999 patients treated with angioplasty with or without stenting for ICAD reported that the rate of death was 3.4% (95% confidence interval [CI] 2.0 to 4.8, range 0 to 33), the rate of perioperative stroke was 8.0% (95% CI 5.5 to 10.4, range 0 to 50), and the rate of other perioperative complications was 9.9% (95% CI 6.4 to 13.4, range 0 to 75). Furthermore, in those studies with follow-up of at least 1 year after the procedure, the risk of stroke or death was 5.6% (95% CI 3.7 to 7.6, range 0 to 50).
- 2.4.3 Overall procedure-related complication rates (including deaths) reported in eight studies involving between 21 and 104 patients ranged between 3% and 39%. For more details, refer to the 'Sources of evidence' section.
- 2.4.4 The Specialist Advisers considered this procedure to be of uncertain safety with potential adverse effects including death, stroke, arterial dissection, vessel occlusion, vessel rupture, haemorrhage, restenosis and stent thrombosis.

## 3 Further information

- 3.1 NICE has issued interventional procedures guidance on high-flow interposition extracranial to intracranial bypass ([www.nice.org.uk/IPG073](http://www.nice.org.uk/IPG073)).
- Andrew Dillon  
Chief Executive  
October 2007

### Information for patients

NICE has produced information describing its guidance on this procedure for patients and their carers ('Understanding NICE guidance'). It explains the nature of the procedure and the decision made, and has been written with patient consent in mind. This information is available from [www.nice.org.uk/IPG233publicinfo](http://www.nice.org.uk/IPG233publicinfo)

### Sources of evidence

The evidence considered by the Interventional Procedures Advisory Committee is described in the following document.

'Interventional procedure overview of endovascular stent insertion for intracranial atherosclerotic disease', March 2007.

Available from: [www.nice.org.uk/ip386overview](http://www.nice.org.uk/ip386overview)

### Ordering information

Copies of this guidance can be obtained from the NHS Response Line by telephoning 0870 1555 455 and quoting reference number N1341. 'Understanding NICE guidance' can be obtained by quoting reference number N1342.

The distribution list for this guidance is available at [www.nice.org.uk/IPG233distributionlist](http://www.nice.org.uk/IPG233distributionlist)

Interventional procedures guidance makes recommendations on the safety and efficacy of a procedure. The guidance does not cover whether or not the NHS should fund a procedure. Decisions about funding are taken by local NHS bodies (primary care trusts and hospital trusts) after considering the clinical effectiveness of the procedure and whether it represents value for money for the NHS.

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**Management of patients with stroke or TIA:  
assessment, investigation, immediate  
management and secondary prevention**

*A national clinical guideline*



*December 2008*

# KEY TO EVIDENCE STATEMENTS AND GRADES OF RECOMMENDATIONS

## LEVELS OF EVIDENCE

- 1<sup>++</sup> High quality meta-analyses, systematic reviews of RCTs, or RCTs with a very low risk of bias
- 1<sup>+</sup> Well conducted meta-analyses, systematic reviews, or RCTs with a low risk of bias
- 1<sup>-</sup> Meta-analyses, systematic reviews, or RCTs with a high risk of bias
- 2<sup>++</sup> High quality systematic reviews of case control or cohort studies  
High quality case control or cohort studies with a very low risk of confounding or bias and a high probability that the relationship is causal
- 2<sup>+</sup> Well conducted case control or cohort studies with a low risk of confounding or bias and a moderate probability that the relationship is causal
- 2<sup>-</sup> Case control or cohort studies with a high risk of confounding or bias and a significant risk that the relationship is not causal
- 3 Non-analytic studies, eg case reports, case series
- 4 Expert opinion

## GRADES OF RECOMMENDATION

*Note: The grade of recommendation relates to the strength of the evidence on which the recommendation is based. It does not reflect the clinical importance of the recommendation.*

- A** At least one meta-analysis, systematic review, or RCT rated as 1<sup>++</sup>, and directly applicable to the target population; or  
A body of evidence consisting principally of studies rated as 1<sup>+</sup>, directly applicable to the target population, and demonstrating overall consistency of results
- B** A body of evidence including studies rated as 2<sup>++</sup>, directly applicable to the target population, and demonstrating overall consistency of results; or  
Extrapolated evidence from studies rated as 1<sup>++</sup> or 1<sup>+</sup>
- C** A body of evidence including studies rated as 2<sup>+</sup>, directly applicable to the target population and demonstrating overall consistency of results; or  
Extrapolated evidence from studies rated as 2<sup>++</sup>
- D** Evidence level 3 or 4; or  
Extrapolated evidence from studies rated as 2<sup>+</sup>

## GOOD PRACTICE POINTS

- Recommended best practice based on the clinical experience of the guideline development group.

NHS Quality Improvement Scotland (NHS QIS) is committed to equality and diversity. This guideline has been assessed for its likely impact on the six equality groups defined by age, disability, gender, race, religion/belief, and sexual orientation.

For the full equality and diversity impact assessment report please see the “published guidelines” section of the SIGN website at [www.sign.ac.uk/guidelines/published/numlist.html](http://www.sign.ac.uk/guidelines/published/numlist.html). The full report in paper form and/or alternative format is available on request from the NHS QIS Equality and Diversity Officer.

Every care is taken to ensure that this publication is correct in every detail at the time of publication. However, in the event of errors or omissions corrections will be published in the web version of this document, which is the definitive version at all times. This version can be found on our web site [www.sign.ac.uk](http://www.sign.ac.uk).

Scottish Intercollegiate Guidelines Network

**Management of patients with stroke or TIA:  
assessment, investigation, immediate  
management and secondary prevention**

A national clinical guideline



December 2008

# 1 Introduction

## 1.1 THE NEED FOR A GUIDELINE

Stroke is the third biggest cause of mortality and the main cause of disability in Scotland. The Scottish Borders Stroke study measured the community based crude incidence of first-ever-in-a-lifetime stroke (FES) in Scotland at 2.8/1,000 of the population.<sup>1</sup> Around 8,500 FESs occur per annum in Scotland,<sup>2</sup> with around 130,000 in the UK.

Stroke is an age-dependent illness and approximately 80% of people with FES present at 65 years of age and over.<sup>1,2</sup> The predicted increase in this proportion of the Scottish population and the greater increase in the older old (over 80 years),<sup>3</sup> will be paralleled by a continuing increase in the number of strokes in Scotland.

## 1.2 REMIT OF THE GUIDELINE

### 1.2.1 OVERALL OBJECTIVES

This guideline replaces SIGN 13 Management of patients with stroke I: Assessment, investigation, immediate management and secondary prevention and SIGN 14 Management of patients with stroke II: Management of carotid stenosis and carotid endarterectomy, which were published in 1997.<sup>4,5</sup>

This guideline takes account of advances in both stroke treatment and imaging. The guideline uses an updated evidence base to support recommendations for all aspects of acute stroke care including the management of carotid stenosis.

The guideline complements SIGN 78 Management of patients with stroke: Identification and management of dysphagia and SIGN 64 Management of patients with stroke: Rehabilitation, prevention and management of complications, and discharge planning.<sup>6,7</sup> As stroke shares risk factors with cardiovascular disease, primary prevention of stroke has been covered in SIGN 97 Risk estimation and the prevention of cardiovascular disease<sup>8</sup> and is not discussed in this guideline.

The guideline follows the patient pathway from the onset of a suspected stroke and covers management of suspected stroke by non-stroke specialist practitioners, and clinical and radiological assessment. Treatment, monitoring and prevention of recurrent stroke in patients with ischaemic stroke, transient ischaemic attack (TIA), primary intracerebral haemorrhage (PICH) and asymptomatic carotid disease are also covered. There is also a section addressing the information and support needs of patients and carers. Management of patients with subarachnoid haemorrhage has not been addressed.

The guideline development group has based the recommendations in this guideline on answers to a series of key questions (see *Annex 1*).

### 1.2.2 TARGET USERS OF THE GUIDELINE

This guideline will be of particular interest to stroke physicians, stroke nurses, specialists in geriatric medicine and care of the elderly, neurologists, neuroradiologists, radiologists, vascular surgeons, cardiologists, general physicians, speech and language therapists, physiotherapists, occupational therapists, pharmacists, specialists in emergency medicine, specialists in intensive care, paramedics, specialists in public health, nurse practitioners and general practitioners.

# Medical Policy

**Subject:** Carotid, Vertebral and Intracranial Artery Angioplasty with or without Stent Placement

**Policy #:** SURG.00001

**Current Effective Date:** 05/20/2011

**Status:** Revised (Coding updated 10/01/2011)

**Last Review Date:** 05/19/2011

## Description/Scope

Percutaneous extracranial carotid artery angioplasty with stenting (CAS) or without stenting has been investigated as a minimally invasive alternative to the current standard of care, that being carotid endarterectomy (CEA). CAS involves the passage of a balloon catheter into the lesion via a femoral or brachial artery, followed by dilatation of the blocked segment and stent placement. Similarly, angioplasty and stenting has been investigated as an alternative treatment for individuals with symptomatic intracranial artery and extracranial vertebrobasilar artery stenosis, since these conditions portend a poor prognosis even with medical therapy, and surgical intervention is associated with considerable morbidity. This document addresses percutaneous extracranial carotid, vertebral and intracranial artery angioplasty with or without stent placement.

## Position Statement

### Medically Necessary:

#### Extracranial Angioplasty with Stent Placement:

Percutaneous extracranial carotid artery angioplasty with stent placement (CAS) performed in conjunction with an FDA approved carotid stent system is considered **medically necessary** for individuals who meet **one or more** of the following criteria **AND** can be safely treated by this approach **AND** who have no angiographically visible intraluminal thrombus:

- A. Symptomatic stenosis equal to or greater than 50%, **or** asymptomatic stenosis equal to or greater than 80%; **AND**

**One or more** of the following conditions which put the individual at a high risk for surgery:

- a. Congestive heart failure (NYHA Class III/IV) or left ventricular ejection fraction less than 30%; or
- b. Open heart surgery needed within the next 6 weeks; or
- c. Recent myocardial infarction (greater than 24 hours and less than 4 weeks); or
- d. Severe chronic obstructive pulmonary disease; or
- e. Unstable angina (CCS class III/IV).

**OR**

- B. Symptomatic stenosis equal to or greater than 50%, **or** asymptomatic stenosis equal to or greater than 80%;

**AND**

**One or more** of the following conditions:

Clinical Policy Bulletin:  
Angioplasty and Stenting of Extra-Cranial and Intra-Cranial Arteries  
**Number: 0276**

**Policy History**

[Last Review](#): 07/13/2011 Effective: 08/28/1998

Next Review: 03/24/2012

[Review History](#)

[Definitions](#)

**Additional Information**

[Clinical Policy Bulletin Notes](#)

**Policy**

1. Aetna considers percutaneous transluminal angioplasty of the extra-cranial carotid and vertebral arteries, with or without stent implantation and embolic protection, medically necessary in symptomatic individuals with at least 50 % stenosis of the carotid artery or the vertebral artery.
2. Aetna considers percutaneous transluminal angioplasty, with or without stenting, of the intra-cranial arteries experimental and investigational for the prophylaxis or treatment of either of the following conditions and all other indications because its effectiveness for these indications has not been established:
  1. Atherosclerotic stenosis of intra-cranial arteries; *or*
  2. Cerebral vasospasm after aneurysmal subarachnoid hemorrhage.

**Background**

Angioplasty and stenting of extra-cranial arteries:

Angioplasty and stenting of carotid and vertebral lesions represents a promising therapeutic option in patients at increased risk for surgical endarterectomy. Endarterectomy has several limitations. Among them, patients with severe coronary artery disease show a 3-fold increase in morbidity and mortality due to cardiac complications of the procedure. Similarly, the risk of endarterectomy is increased in patients with carotid lesions that, due to their anatomic location, are difficult to approach surgically. In addition, the risk of endarterectomy is increased in patients having previous cervical radiotherapy, previous endarterectomy, or lesions located or extending distally in the internal carotid artery.

There has been a high level of interest in treating extra-cranial carotid and vertebral stenoses with either angioplasty or stents. The relative technical ease of performing such procedures has attracted considerable attention in the clinical community. Such procedures are being performed in several academic medical centers. A prospective, randomized, controlled, multicenter clinical trial designed to compare these endovascular interventions with the "gold standard" of surgical carotid endarterectomy is currently being conducted.

Although a recent study found that among patients with severe carotid artery stenosis and co-existing conditions (symptomatic carotid-artery stenosis of at least 50% of the luminal diameter or an asymptomatic stenosis of at least 80 %), carotid stenting with the use of an emboli-protection device is not inferior to carotid endarterectomy (Yadav et al, 2004), the editorial accompanying this study stated that the small sample size and the study end points prevent

## **Section 4**

### **Straightforward Items**

**Straightforward Issues—May, 2012**

**Straightforward Issues—May, 2012**

<b>Code</b>	<b>Code Description</b>	<b>Line(s) Involved</b>	<b>Issue</b>	<b>Recommendation(s)</b>
44186	Laparoscopy, surgical; jejunostomy (eg, for decompression or feeding)	<b>339</b> CANCER OF ESOPHAGUS	DMAP is requesting that 44186 be added to line 339 to pair with 150.8 (Malignant neoplasm of esophagus; Other specified part). 44186 is currently on lines 48,78,111.	Add 44186 to line 339
92083	Visual field examination, unilateral or bilateral, with interpretation and report; extended examination	<b>162</b> BENIGN NEOPLASM OF PITUITARY GLAND <b>407</b> DYSFUNCTION RESULTING IN LOSS OF ABILITY TO MAXIMIZE LEVEL OF INDEPENDENCE IN SELF- DIRECTED CARE CAUSED BY CHRONIC CONDITIONS THAT CAUSE NEUROLOGICAL DYSFUNCTION	DMAP is requesting that 92083 be added to line 407 to pair with 369.20 (Blindness and low vision; Moderate or severe impairment, both eyes; Impairment level not further specified) and to line 162 to pair with 227.3 (Benign neoplasm of pituitary gland and craniopharyngeal duct (pouch)). 92083 is currently on more than 50 lines.	Add 92083 to lines 162 and 407
31615	Tracheobronchoscopy through established tracheostomy incision	<b>78</b> NEUROLOGICAL DYSFUNCTION IN BREATHING, EATING, SWALLOWING, BOWEL, OR BLADDER CONTROL CAUSED BY CHRONIC CONDITIONS	DMAP is requesting that 31615 be taken off line 78 and added to the Diagnostic Procedures List, as this is a diagnostic test.	Remove 31615 from line 78  Advise DMAP to add 31615 to the Diagnostic Procedures List.
92134	Scanning computerized ophthalmic diagnostic imaging, posterior segment, with interpretation and report, unilateral or bilateral; retina	<b>413</b> CENTRAL SEROUS RETINOPATHY	DMAP is requesting that 92134 be added to line 413 to pair with 362.41 (Central serous retinopathy). 92134 is on approximately 40 lines on the List.	Add 92134 to line 413
77301	Intensity modulated radiotherapy	<b>218</b> CANCER OF UTERUS	DMAP is requesting that 77301	Add 77301 to lines 218

**Straightforward Issues—May, 2012**

<b>Code</b>	<b>Code Description</b>	<b>Line(s) Involved</b>	<b>Issue</b>	<b>Recommendation(s)</b>
	plan, including dose-volume histograms for target and critical structure partial tolerance specifications	<b>229</b> CANCER OF STOMACH	be added to line 218 to pair with 182.8 (Malignant neoplasm of other specified sites of body of uterus) and line 229 to pair with 151.8 (Malignant neoplasm of other specified sites of stomach). 77301 is on multiple cancer lines on the List.	and 229
54440	Plastic operation of penis for injury	<b>142</b> CRUSH INJURIES OTHER THAN DIGITS; COMPARTMENT SYNDROME <b>458</b> HYPOSPADIAS AND EPISPADIAS	DMAP is requesting that 54440 be added to line 339 to pair with 959.13 (Fractures of corpus cavernosum penis). 54440 is currently on line 458. Per Medscape, “Penile fracture is the traumatic rupture of the corpus cavernosum. Traumatic rupture of the penis is relatively uncommon and is considered a urologic emergency.” 959.13 is in the crush injury area of ICD-9 codes; however, its treatment is different. Treatments are similar to treatments on line 458.	Add 959.13 to line 458  Remove 959.13 from line 142
27301	Incision and drainage, deep abscess, bursa, or hematoma, thigh or knee region	<b>448</b> COMPLICATIONS OF A PROCEDURE USUALLY REQUIRING TREATMENT	DMAP is requesting that 27301 be added to line 448 to pair with 998.12 (Hematoma complicating a procedure). 28301 is currently on lines 84,214,250,308.	Add 27301 to line 448
58150-58200	Total abdominal hysterectomy	<b>56</b> ACUTE PELVIC INFLAMMATORY DISEASE	DMAP is requesting that 58541 be added to line 56 to pair with 614.9 (Unspecified	Add 58150-58200, 58260-58294, 58541-58544, 58550-58554,

**Straightforward Issues—May, 2012**

<b>Code</b>	<b>Code Description</b>	<b>Line(s) Involved</b>	<b>Issue</b>	<b>Recommendation(s)</b>
58260-58294	Vaginal hysterectomy		inflammatory disease of female pelvic organs and tissues). On review, multiple abscess codes are located on line 56 (tubo-ovarian abscess, etc.) which may require surgical treatment. No hysterectomy codes are currently located on line 56.	58570-58573 to line 56
58541-58544	Laparoscopy, surgical, supracervical hysterectomy			
58550-58554	Laparoscopy, with vaginal hysterectomy			
58570-58573	Laparoscopy, surgical, with total hysterectomy			
35820	Exploration for postoperative hemorrhage, thrombosis or infection; chest	<b>90</b> MYOCARDITIS (NONVIRAL), PERICARDITIS (NONVIRAL) AND ENDOCARDITIS <b>448</b> COMPLICATIONS OF A PROCEDURE USUALLY REQUIRING TREATMENT	DMAP is requesting that 35820 be added to line 90 to pair with 423.0 (Hemopericardium) and to line 448 to pair with 998.12 (Hematoma complicating a procedure). 35820 is currently on lines 303, 307, 308, 349, 350, and 472. HERC staff suggests pairing only with 423.0 on line 90 as 998.12 is too non-specific a code (more specific codes exist that would pair on other lines).	Add 35820 to line 90
12020	Treatment of superficial wound dehiscence; simple closure	<b>308</b> COMPLICATIONS OF A PROCEDURE ALWAYS REQUIRING TREATMENT	DMAP is requesting that 12020 be added to line 308 to pair with 998.33 (Disruption of traumatic injury wound repair). 12020 is currently on lines 143, 216, 243, 292, and 650. Similar code 12021 is already on line 308.	Add 12020 to line 308

**Straightforward Issues—May, 2012**

<b>Code</b>	<b>Code Description</b>	<b>Line(s) Involved</b>	<b>Issue</b>	<b>Recommendation(s)</b>
46917	Destruction of lesion(s), anus (eg, condyloma, papilloma, molluscum contagiosum, herpetic vesicle), simple; laser surgery	<b>165</b> CANCER OF COLON, RECTUM, SMALL INTESTINE AND ANUS <b>278</b> CANCER OF LUNG, BRONCHUS, PLEURA, TRACHEA, MEDIASTINUM AND OTHER RESPIRATORY ORGANS	HERC staff found on review that 46917 was inappropriately placed on two lines. It is appropriately placed on line 426 ANOGENITAL VIRAL WARTS.	Remove 46917 from lines 165 and 278
46610-46612, 46615	Anoscopy, with removal of single or multiple tumors(s), polyp(s) or other lesion(s)	<b>173</b> ANAL, RECTAL AND COLONIC POLYPS	HERC staff found on review that anoscopy codes with polyp removal were not located on line 173, which has the treatment description of “Excision of polyp.”	Add 46610-46612, 46615 to line 173
44625 44626	Closure of enterostomy, large or small intestine; with resection and anastomosis other than colorectal Closure of enterostomy, large or small intestine; with resection and colorectal anastomosis (eg, closure of Hartmann type procedure)	<b>48</b> INTUSSUSCEPTION, VOLVULUS, INTESTINAL OBSTRUCTION, AND FOREIGN BODY IN STOMACH, INTESTINES, COLON, AND RECTUM <b>323</b> FISTULA INVOLVING FEMALE GENITAL TRACT <b>353</b> VESICULAR FISTULA	DMAP is requesting that 44625 be added to line 48 to pair with 560.81 (Intestinal or peritoneal adhesions with obstruction (postoperative) (postinfection)), line 323 to pair with 619.1 (Digestive-genital tract fistula, female) and to line 353 to pair with 596.1 (Intestinovesical fistula). 44625 is currently on lines 35, 62, 84, 88, 97, 111, 165, 173, 191, 448. 44626 is also on the above lines and missing from lines 48, 323 and 353.	Add 44625 and 44626 to lines 48, 323, and 353
77470	Special treatment procedure (eg, total body irradiation, hemibody radiation, per oral or endocavitary irradiation.	<b>166</b> HODGKIN'S DISEASE <b>229</b> CANCER OF STOMACH	DMAP is requesting that 77470 be added to line 229 to pair with 151.8 (Malignant neoplasm of other specified sites of stomach) and to line 166 to pair with	Add 77470 to lines 166 and 229

**Straightforward Issues—May, 2012**

<b>Code</b>	<b>Code Description</b>	<b>Line(s) Involved</b>	<b>Issue</b>	<b>Recommendation(s)</b>
			201.92 (Hodgkin’s disease, unspecified type, or intrathoracic lymph nodes). 77470 is on multiple lines.	
52354  52355	Cystourethroscopy, with ureteroscopy and/or pyeloscopy; with biopsy and/or fulguration of ureteral or renal pelvic lesion.  Cystourethroscopy, with ureteroscopy and/or pyeloscopy; with resection of ureteral or renal pelvic tumor	<b>228</b> CANCER OF KIDNEY AND OTHER URINARY ORGANS <b>287</b> CANCER OF BLADDER AND URETER	DMAP is requesting that 52354 be added to line 87 to pair with 189.2 (Malignant neoplasm of Ureter). 52354 is currently on lines 54, 186, 228. 52355 is currently on line 287; however, on review, 52355 is missing from line 228.	Add 52354 to line 287  Add 52355 to line 228
61600	Resection or excision of neoplastic, vascular or infectious lesion of base of anterior cranial fossa; extradural.	<b>84</b> DEEP ABSCESSSES, INCLUDING APPENDICITIS AND PERIORBITAL ABSCESS; INTESTINAL PERFORATION	DMAP is requesting that 61600 be added to line 84 to pair with 324.0 (Intracranial abscess). 61600 is currently on lines 137,201,320.	Add 61600 to line 84
31290  31291	Nasal/sinus endoscopy, surgical, with repair of cerebrospinal fluid leak; ethmoid region  Nasal/sinus endoscopy, surgical, with repair of cerebrospinal fluid leak; sphenoid region	<b>201</b> SUBARACHNOID AND INTRACEREBRAL HEMORRHAGE/HEMATOMA; CEREBRAL ANEURYSM; COMPRESSION OF BRAIN	DMAP is requesting that 31290 be added to line 84 to pair with 349.81 (Cerebrospinal fluid rhinorrhea). 31290 and 31291 are on lines 498,532	Add 31290 and 31291 to line 201

# Scoring Criteria

## **Scoring Criteria for the HERC Individual and Population Health Impact Measures**

### Impact of Condition on Health without Treatment

- 0 – No impact on health (beyond the short term)
- 1 – Nonfatal condition with a marginal impact on health and/or functional status
- 2 – Nonfatal condition with a modest impact on health and/or functional status
- 3 – Nonfatal condition with a low probability of a significant residual effect or a high probability of a residual effect with a moderate impact on health and/or functional status
- 4 – Nonfatal condition with a low probability (<20%) of significant disability
- 5 – Nonfatal condition with at least a moderate probability ( $\geq 20\%$ ) of significant disability or has a low fatality rate (<10%) and condition is not likely to shorten lifespan by more than 10 years
- 6 – Moderately fatal condition (10-30%) and condition is not likely to shorten lifespan by more than 10 years, or has a low fatality rate and lifespan likely reduced by 10 to 35 years
- 7 – Highly fatal condition (>30%) and condition is not likely to shorten lifespan by more than 10 years; moderately fatal with lifespan likely reduced by 10 to 35 years; or has a low fatality with lifespan likely reduced by 35 to 60 years
- 8 – Highly fatal condition with lifespan likely reduced by 10 to 35 years; moderately fatal with lifespan likely reduced by 35 to 60 years; or has a low fatality rate and lifespan likely to be shortened by 60 years or more
- 9 – Highly fatal condition with lifespan likely reduced by 35 to 60 years or moderately fatal and lifespan likely to be shortened by 60 years or more
- 10 – Highly fatal condition and lifespan likely to be shortened by 60 years or more

### Impact on Pain and Suffering

- 0 – No impact on pain or suffering
- 1 – Intermittent pain of moderate level or frequent pain of low level and/or low level of suffering of the individual, immediate family or caregiver
- 2 – Frequent pain of moderate level or constant pain of low level and/or modest level of suffering of the individual, immediate family or caregiver
- 3 – Intermittent pain of high level or constant pain of moderate level and/or moderate level of suffering of the individual, immediate family or caregiver
- 4 – Frequent pain of high level and/or high level of suffering of the individual, immediate family or caregiver
- 5 – Constant pain of high level and/or extreme suffering of the individual, immediate family or caregiver

### Population Effects

- 0 – No impact on population health
- 1 – Nontreatment would result in limited spread of a significant nonfatal disease or have a low impact on population safety (e.g. due to the nontreatment of a mental health condition)
- 2 – Nontreatment would result in a moderate spread of a significant nonfatal disease or have a modest impact on population safety
- 3 – Nontreatment would result in a limited spread of a potentially fatal disease or a wide spread of a significant nonfatal disease or have a moderate impact on population safety

- 4 – Nontreatment would result in a moderate spread of a potentially fatal disease or have a high impact on population safety
- 5 – Nontreatment would result in a wide spread of a potentially fatal disease or have a very high impact on population safety

#### Impact on Vulnerable Populations

- 0 – No impact on vulnerable populations
- 1 – Somewhat disproportionate impact of a condition with a moderate impact on health on one or more vulnerable populations (does not include men, women, children or pregnant women considered as separate populations or low-income individuals, since methodology is only being applied to Medicaid population at this point)
- 2 – Moderately disproportionate impact of a condition with a moderate impact on health on one or more vulnerable populations
- 3 – Somewhat disproportionate impact of a condition with a significant impact on health on one or more vulnerable populations
- 4 – Moderately disproportionate impact of a condition with a significant impact on health on one or more vulnerable populations
- 5 – Highly disproportionate impact of a condition with a significant impact on health on one or more vulnerable populations

#### Tertiary Prevention

- 0 – No tertiary prevention provided by treatment and early treatment does not prevent progression of the disease
- 1 – Treatment will prevent of moderate complication and/or early treatment may prevent progression of the disease resulting in a moderate impact on health
- 2 – Low to modest likelihood that treatment will prevent a significant complication or prevent progression of the disease resulting in significant impact on health
- 3 – Moderate to high likelihood that treatment will prevent a significant complication or prevent progression of the disease resulting in significant impact on health
- 4 – Low to modest likelihood that treatment will prevent severely debilitating complication and/or early treatment with prevent progression of disease leading to severe disability or death
- 5 – Moderately to high likelihood that treatment will prevent severely debilitating complication and/or early treatment with prevent progression of disease leading to severe disability or death

#### Effectiveness

- 0 – No demonstrated effectiveness (<5%) or causes harm
- 1 - Achieves desired result in 5-25% of cases
- 2 - Achieves desired result in 25-50% of cases
- 3 – Achieves desired result in 50-75% of cases
- 4 – Achieves desired result in 75-95% of cases
- 5 – Achieves desired result in 95+% of cases

#### Net Cost

- 0 – Very high cost (>\$100,000)
- 1 – High cost (\$20,000-\$100,000)
- 2 – Moderate cost (\$5,000-\$20,000) or higher cost somewhat offset by cost of treatment alternative

- 3 – Modest cost (\$1,000-\$5,000) or higher cost significantly offset by cost of treatment alternative
- 4 – Low cost (<\$1,000) or higher cost nearly offset by cost of treatment alternative
- 5 – Cost savings

## Population and Individual Impact Measures

**Impact on Health Life Years** - to what degree will the condition impact the health of the individual if left untreated, considering the median age of onset (i.e., does the condition affect mainly children, where the impacts could potentially be experienced over a person's entire lifespan)? Range of 0 (no impact) to 10 (high impact).

**Impact on Suffering** - to what degree does the condition result in pain and suffering? Effect on family members (e.g. dealing with a loved one with Alzheimer's disease or needing to care for a person with a life-long disability) should also be factored in here. Range of 0 (no impact) to 5 (high impact).

**Population Effects** - the degree to which individuals other than the person with the illness will be affected. Examples include public health concerns due the spread of untreated tuberculosis or public safety concerns resulting from untreated severe mental illness. Range of 0 (no effects) to 5 (widespread effects).

**Vulnerability of Population Affected** - to what degree does the condition affect vulnerable populations such as those of certain racial/ethnic descent or those afflicted by certain debilitating illnesses such as HIV disease or alcohol & drug dependence? Range of 0 (no vulnerability) to 5 (high vulnerability).

**Tertiary Prevention** - in considering the ranking of services within new categories 6 and 7, to what degree does early treatment prevent complications of the disease (not including death)? Range of 0 (doesn't prevent complications) to 5 (prevents severe complications).

**Effectiveness** - to what degree does the treatment achieve its intended purpose? Range of 0 (no effectiveness) to 5 (high effectiveness).

<b>Healthy Life Years Score Examples</b>					
<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Sexual Dysfunction	Anogenital Viral Warts	Tourette's Disorder And Tic Disorders	Termination Of Pregnancy	Pituitary Dwarfism	Chronic Organic Mental Disorders Including Dementias
Disorders Of Sleep Without Sleep Apnea	Anti-Social Personality Disorder	Dental Conditions (Eg. Periodontal Disease)	Incontinence Of Feces	Schizotypal Personality Disorders	Autism Spectrum Disorders
<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	
Abuse Or Dependence Of Psychoactive Substance	Drug Withdrawal Syndrome In Newborn	HIV Disease And Related Opportunistic Infections	Cystic Fibrosis	Very Low Birth Weight (Under 1500 Grams)	
Tobacco Dependence	Tuberculosis	Life-Threatening Cardiac Arrhythmias	Acute And Subacute Necrosis Of Liver; Specified Inborn Errors Of Metabolism (Eg. Maple Syrup Urine Disease, Tyrosinemia)	Short Bowel Syndrome - Age 5 Or Under	

<b>Pain And Suffering Score Examples</b>					
<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Anogenital Viral Warts	Anti-Social Personality Disorder	Sexual Dysfunction	Tourette's Disorder And Tic Disorders	Autism Spectrum Disorders	Chronic Organic Mental Disorders Including Dementias
Acute Viral Conjunctivitis	Pituitary Dwarfism	Disorders Of Sleep Without Sleep Apnea	Abuse Or Dependence Of Psychoactive Substance	Cystic Fibrosis	Very Low Birth Weight (Under 1500 Grams)
Chronic Bronchitis	Schizotypal Personality Disorders	Termination Of Pregnancy		Short Bowel Syndrome - Age 5 Or Under	

<b>Population Effects Score Examples</b>					
<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Sexual Dysfunction	Life-Threatening Cardiac Arrhythmias	Anogenital Viral Warts	HIV Disease And Related Opportunistic Infections	Anti-Social Personality Disorder	Chronic Hepatitis; Viral Hepatitis
Disorders Of Sleep Without Sleep Apnea	Autism Spectrum Disorders	Tobacco Dependence	Termination Of Pregnancy	Tuberculosis	Abuse Or Dependence Of Psychoactive Substance

<b>Vulnerability Of Population Score Examples</b>					
<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Pituitary Dwarfism	Very Low Birth Weight (Under 1500 Grams)	Tourette's Disorder And Tic Disorders	Drug Withdrawal Syndrome In Newborn	Chronic Hepatitis; Viral Hepatitis	HIV Disease And Related Opportunistic Infections
Cystic Fibrosis	Tobacco Dependence	Anogenital Viral Warts	Incontinence Of Feces	Tuberculosis	

<b>Effectiveness Of Treatment Score Examples</b>					
<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Acute Viral Conjunctivitis	Schizotypal Personality Disorders	Tobacco Dependence	Life-Threatening Cardiac Arrhythmias	Cystic Fibrosis	Pituitary Dwarfism
Chronic Bronchitis	Anti-Social Personality Disorder	Tourette's Disorder And Tic Disorders	Sexual Dysfunction	HIV Disease And Related Opportunistic Infections	Termination Of Pregnancy

<b>Tertiary Prevention Score Examples</b>					
<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Cancer Of Pancreas	Stroke	Urinary Incontinence	Iron Deficiency Anemia And Other Nutritional Deficiencies	Diabetes Mellitus With End Stage Renal Disease	Acute And Subacute Ischemic Heart Disease, Myocardial Infarction
Ruptured Spleen	Sexual Dysfunction	Cleft Palate And/Or Cleft Lip	Chronic Hepatitis; Viral Hepatitis	Injury To Internal Organs	Acute Stress Disorder
Minor Burns	Acute Bronchitis And Bronchiolitis	Depression And Other Mood Disorders, Mild Or Moderate	Superficial Injuries With Infection	Ulcers, Gastritis, Duodenitis, And Gi Hemorrhage	Hearing Loss - Age 5 Or Under