NHSN Outpatient Dialysis Reporting: The View From 35,000 Feet

Background

- Statistics from NIDDK (2005)[1]:
  - Over 485,000 cases of end-stage renal disease (ESRD) in the US
    - About 37% resulting from diabetes
  - About 107,000 new cases of ESRD in 2005
    - About 44% resulting from diabetes
  - Estimated costs: $32 billion (2005 dollars)
    - About $66,000 per patient per year
    - About 90% of cases covered by Medicare
  - About 312,000 ESRD patients received hemodialysis services
- Oregon has 54 outpatient dialysis centers
  - Most are affiliated with major outpatient dialysis networks

NHSN Dialysis Incident

- Part of the Device-Associated Module
  - Must report for a minimum of six months
- Specific events (numerator data):
  - Hospitalization
  - IV antimicrobial start
    - Was IV vancomycin started?
  - Positive blood culture
    - Pathogens/susceptibility are specified similar to CLABSI reporting
- Denominator data
  - The number of chronic hemodialysis patients who received hemodialysis services on the first two working days of the month
- Risk stratifier: type of vascular access
  - Graft
  - Fistula
  - Temporary central line
  - Permanent central line
  - Port access device

NHSN's 2006 Dialysis Surveillance Report[2]

Specific Event	Fistula	Graft	Permanent central line	Temporary central line
Hospitalization*	7.7	9.2	15.7	34.7
Antibiotic start*	1.8	2.4	6.4	25.4
*Vancomycin**	*1.2*	*1.6*	*5.0*	*16.1*
Bloodstream infection*	.5	.9	4.2	27.1

* Mean rate per 100 patient-months

1: http://kidney.niddk.nih.gov/kudiseases/pubs/kustats/index.htm, accessed 10/10/2008.
2: Klevens RM, Edwards JR, Andrus ML, et al. *Seminars in Dialysis*. 2008: 21(1), 24-28.

Dialysis Surveillance Report: National Healthcare Safety Network (NHSN)—Data Summary for 2006

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ABSTRACT

Thirty-two outpatient hemodialysis providers in the United States voluntarily reported 3699 adverse events to the Centers for Disease Control and Prevention (CDC) National Healthcare Safety Network (NHSN) during 2006. These providers were previously enrolled in the Dialysis Surveillance Network. The pooled mean rates of hospitalization among patients with arteriovenous fistulas, grafts, permanent and temporary central venous catheters were 7.7, 9.2, 15.7, and 34.7 per 100 patient-months, respectively. For bloodstream infection the pooled mean rates were 0.5, 0.9, 4.2, and 27.1 per 100 patient-months in these groups. Among the 599 isolates reported, 461 (77%) represented access-associated blood stream infections in patients with central lines, and 138 (23%) were in patients with fistulas or grafts. The microorganisms most frequently identified were common skin contaminants (e.g., coagulase-negative staphylococci). In 2007, enrollment in NHSN opened to all providers of outpatient hemodialysis. Specific information is available at http://www.cdc.gov/ncidod/dhqp/nhsn_FAQenrollment.html.

Background

In the United States, 309, 269 people were treated for end-stage renal disease (ESRD) by hemodialysis during 2004 (1). This number of cases was a record high and almost twice the number treated just 10 years earlier (1). Infections are the second most common cause of death among ESRD patients, and they account for nearly 14% of deaths (1). Their risk of infection occurs as a result of immunosuppression and is exacerbated by the need to routinely access their bloodstream for treatment. Antimicrobial resistance is of particular concern because hemodialysis patients are often hospitalized, where they can be exposed to antibiotic-resistant pathogens. In addition, they are often treated with long courses of antimicrobials (2).

The National Kidney Foundation's Kidney Disease Outcome Quality Initiative (DOQI) guidelines recommend monitoring vascular infections to identify outbreaks and observe trends (3). CDC guidelines to prevent intravascular catheter-related infections recommend surveillance of catheter insertion, maintenance and infection rates (4). Local (i.e., center-specific) surveillance of infections can help identify areas where improvements in infection control might be necessary. Additionally, local surveillance data can be used to evaluate the effectiveness of prevention interventions. If providers are to prevent antimicrobial resistance, monitoring antimicrobial use and antimicrobial resistance of organisms associated with infections in dialysis patients is critical (5).

Methods

CDC's National Healthcare Safety Network (NHSN) is the successor system to the Dialysis Surveillance Network (DSN; 6), the National Nosocomial Infections Surveillance System (NNIS; 7), and the National Surveillance System for Healthcare Workers. During 2005, outpatient hemodialysis providers already in the Dialysis Surveillance Network transitioned into the NHSN. Dialysis surveillance activities are part of the NHSN Patient Safety Component, Device-Associated Module. The detailed protocol and case report forms are available at http://www.cdc.gov/ncidod/dhqp/nhsn_members.html. Participants include free-standing and hospital-based centers that provide outpatient, chronic hemodialysis.

At each participating dialysis center, staff members monitor patients for any of three specific events that trigger a report: (1) an overnight hospital stay, (2) an outpatient start of an intravenous (IV) antimicrobial, or (3) a positive blood culture. More than one specific event

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may be recorded on the same patient's report. After 20 days, the occurrence of an outpatient start of an IV antimicrobial or a positive blood culture in a patient is considered a new case; a new hospitalization can be reported at any time. The case report form captures basic clinical data for each patient and event, including the type of vascular access and use of vancomycin. Information used to estimate the denominator (patient-months) is obtained during the first two working days of the month. During those 2 days, the number of patients with each type of vascular access is recorded (fistula, graft, temporary and permanent central line, and port). Rates expressed in patient-months can be interpreted as the average percentage of patients having the event each month (8).

Dialysis staff members enter this information monthly using NHSN's reporting tool, accessible through CDC's Secure Data Network. Center-specific data are immediately available on-line. Data aggregated from all centers are analyzed at CDC. Patient and center information is protected at CDC by provisions of federal Public Health Service law (9).

Definitions

Each center determined whether a central line used for vascular access was considered temporary or permanent. A port vascular access was a fully implantable access device (e.g., Lifesite). We defined a hospitalization as any report where a patient stayed overnight in a hospital, regardless of cause. An antimicrobial start was any initiation of a new antimicrobial agent not in use for the previous 21 days, and delivered IV. Vancomycin starts were a subset of antimicrobial starts for which vancomycin was the agent used. We defined a local access infection as the presence of pus, redness, or swelling of the vascular access site without access-associated bloodstream infection. An access-associated bloodstream infection was defined as a patient with a microorganism identified in a blood culture where the source of infection was the vascular access site. A bloodstream infection was a report of a positive blood culture, regardless of the source of the infection, and included access-associated bloodstream infections. A vascular access infection was a patient with either a local access infection or an access-associated bloodstream infection.

In this report, we summarize data submitted by hemodialysis centers to the NHSN during 2006.

Results

Thirty-two centers providing outpatient hemodialysis reported data to the NHSN in 2006. These centers submitted data on 28,047 patient-months: 12,140 (43%) were among patients with fistulas, 8806 (31%) with permanent central lines, 6907 (25%) with grafts, 118 (0.4%) with temporary central lines, and 76 (0.3%) with ports. During 2006, dialysis centers reported 3699 adverse events. The number of events reported among patients with ports was not adequate to calculate rates or rate distributions. The number of events reported among patients with temporary central lines was not adequate to provide distribution of rates. Event rates varied by vascular access type (Table 1). The most frequent event was hospitalization (2985 reports). The pooled mean rate of hospitalization ranged from 7.7 per 100 patient-months among patients with fistulas to 34.7 per 100 patient-months among patients with temporary central lines. Percentiles describing the variability of rates across participating dialysis centers are also shown in Table 1. Half of the centers had a rate of hospitalization ≥ 7.9 per 100 patient-months among patients with fistulas.

The pooled mean rate among the 977 reports of antimicrobial starts ranged from 1.8 to 25.4 per 100 patient-months. In 73% of these events, vancomycin was used; the pooled mean rate of vancomycin starts ranged from 1.2 to 16.1 per 100 patient-months. The pooled mean rate of bloodstream infection ranged from 0.5 to 27.1 per 100 patient-months. The pooled mean rate of a vascular access infection (either a local access infection or an access-associated bloodstream infection) ranged from 0.4 to 22.9 per 100 patient-months.

Among the 532 positive blood cultures, 599 isolates were reported. Of these, 461 (77%) represented access-associated bloodstream infections in patients with central lines, and 138 (23%) were in patients with fistulas or grafts (Table 2). Among isolates from patients with either a central line, fistula, or graft, the microorganisms most frequently identified were common skin contaminants (e.g., coagulase-negative staphylococci). Overall, 181 isolates from positive blood cultures were tested for antimicrobial susceptibility and results reported to NHSN (Table 3). The most frequently reported organism was *S. aureus* of which 42% were resistant to methicillin (MRSA). Of the enterococci tested and reported, 26% were resistant to vancomycin.

Discussion

In 2006, rates of adverse events were higher among dialysis patients with central lines than among those with fistulas or grafts (8,10,11). The rate of hospitalization among patients with temporary central lines was 34.7 per 100 patient-months, about four times the rate among those with fistulas or graphs (7.7–9.2 patients per 100 patient-months). Likewise, the rate of bloodstream infection was substantially higher among patients with temporary central lines (27.1 per 100 patient-months) than among patients with fistulas or grafts (< 1 per 100 patient-months). Through the Fistula First Campaign, the Centers for Medicare and Medicaid Services (CMS), ESRD Networks, the renal community, and the Institute for Healthcare Improvement (IHI) are working with many other partners, including CDC, to improve the likelihood that patients receive the most optimal form of vascular access; generally an arteriovenous fistula. Complications related to vascular access are also avoided through appropriate access monitoring and intervention (12). However, even with optimal vascular access, careful attention to infection control is necessary to help prevent infections (13).

TABLE 1. Pooled means and key percentiles of the distribution of rates of dialysis surveillance events by type of vascular access, device-associated module, patient safety component, National Healthcare Safety Network, 2006

Type of access	Event[a]	Percentile					
		Pooled mean	10%	25%	50% (median)	75%	90%
Hospitalization							
Fistula	932	7.7	0.1	2.9	7.9	10.4	11.3
Graft	632	9.2	0	3.6	9.8	13.2	15.1
Perm. central line	1380	15.7	0.3	9.5	15.8	21.2	25.2
Temp. central line	41	34.7	—	—	—	—	—
Antibiotic starts							
Fistula	218	1.8	0	0.3	1.4	2.8	3.9
Graft	163	2.4	0	0.6	1.8	3.7	5.5
Perm. central line	566	6.4	0	2.2	4.8	10.5	12.8
Temp. central line	30	25.4	—	—	—	—	—
Vancomycin							
Fistula	148	1.2	0	0	1.2	2	2.7
Graft	113	1.6	0	0.3	1.2	2.2	4
Perm. central line	436	5.0	0	1.8	3.1	7.8	9.5
Temp. central line	19	16.1	—	—	—	—	—
Bloodstream infection							
Fistula	63	0.5	0	0	0.3	0.7	1.1
Graft	63	0.9	0	0	0.6	1.6	2.2
Perm. central line	374	4.2	0	1.6	3.4	6	9.4
Temp. central line	32	27.1	—	—	—	—	—
Local access infection							
Fistula	27	0.2	0	0	0	0.2	1
Graft	31	0.4	0	0	0	0.5	1.1
Perm. central line	148	1.7	0	0	0.5	1.8	3.9
Temp. central line	6	5.1	—	—	—	—	—
Access-associated bloodstream infection							
Fistula	26	0.2	0	0	0	0.3	0.5
Graft	31	0.4	0	0	0.2	0.8	1.5
Perm. central line	272	3.1	0	0.6	2.4	4.5	6.3
Temp. central line	21	17.8	—	—	—	—	—
Vascular-access infection							
Fistula	53	0.4	0	0	0.3	0.7	1.3
Graft	62	0.9	0	0	0.7	1.3	2.1
Perm. central line	420	4.8	0	2	3.6	6	10.7
Temp. central line	27	22.9	—	—	—	—	—

Perm, permanent; temp, temporary.

The number of events reported among patients with temporary central lines was not adequate to provide distribution of rates.

[a] $\frac{\text{Number of events}}{\text{Number of patient-months}} \times 100$.

Consistent with previous reports (8,10) we found that among bloodstream infections in patients with central lines, the most frequently reported organisms were common skin contaminants. However, among patients with fistulas or grafts, the frequency of common skin contaminants was somewhat higher in 2006 than during 1999–2005 (10). We cannot determine whether any of the common skin contaminants were true pathogens or specimen contamination (14,15). Antimicrobial treatment based on a report reflecting contamination can lead to antimicrobial resistance (see http://www.cdc.gov/drugresistance/healthcare/patients.htm#dialysis).

Monitoring organisms associated with infections and their resistance patterns is necessary for prevention of resistance (5). Methicillin-resistant *Staphylococcus aureus* is a major problem among patients on hemodialysis; the rate of invasive MRSA infections in dialysis patients was an estimated 45 per 1000 in 2005 in the United States (16). Among dialysis centers participating in NHSN, 42% of all *S. aureus* isolates from positive blood cultures were MRSA. To prevent infections with MRSA and other resistant organisms in outpatient dialysis centers a comprehensive approach that includes prevention of infections, judicious antimicrobial use, and prevention of transmission is needed (17).

Participation in NHSN is voluntary, and CDC restricted enrollment during 2006 to existing participants in NNIS or DSN. Therefore, results reported may not represent all U.S. centers providing outpatient hemodialysis. Currently, all U.S. outpatient hemodialysis centers interested in participating in NHSN are invited to enroll. Participating centers can be free-standing dialysis centers or centers affiliated with a hospital, but they should serve mostly ambulatory, chronic hemodialysis patients. To participate in NHSN, centers must meet certain technical requirements (i.e., Internet access, a valid e-mail address, and have the ability to download a digital certificate) and make a commitment to follow the data collection protocol, complete an annual practices survey, and report data for dialysis events and denominator data for at least 6 months in a given year. For

TABLE 2. Microorganisms isolated from blood cultures reported by U.S. participants in outpatient dialysis surveillance by type of vascular access, device-associated module, patient safety component, National Healthcare Safety Network, 2006

	Central line-associated bloodstream infection number (%)	Fistula or graft access-associated bloodstream infection number (%)
Staphylococcus aureus	91 (19.7)	39 (28.3)
Other gram-positive	46 (10.0)	22 (15.9)
Gram-negative rods	107 (23.2)	19 (13.8)
Common skin contaminants[a]	204 (44.3)	51 (37.0)
Fungi	8 (1.7)	4 (2.9)
Other	5 (1.1)	3 (2.2)
Total	461	138

[a]Common skin contaminants included: *Bacillus* sp., *Corynebacterium* sp., coagulase-negative *Staphylococcus*, Diphtheroids, *Propionibacterium acnes, Propionibacterium propionicum, Propionibacterium* sp. unspecified, *Staphylococcus epidermidis, Staphylococcus auricularis, Staphylococcus capitis* ssp. *capitis, Staphylococcus capitis* ssp. unspecified, *Staphylococcus haemolyticus, Staphylococcus hominis, Staphylococcus lugdunensis, Staphylococcus simulans, Staphylococcus warneri,* alpha-hemolytic *Streptococcus*, and *Streptococcus viridans*.

TABLE 3. Antimicrobial susceptibility among most frequently reported isolates[a] from blood cultures reported by U.S. participants in outpatient dialysis surveillance, device-associated module, patient safety component, National Healthcare Safety Network, 2006

	Number of isolates tested and reported	Number (%) resistant
Staphylococcus aureus resistant to methicillin	123	52 (42%)
Enterococcus spp. resistant to vancomycin	39	10 (26%)
Enterobacter spp. resistant to third generation cephalosporins	17	1 (6%)

[a]The number of coagulase-negative staphylococci resistant to methicillin was < 5 and omitted from the report.

enrollment information, please visit http://www.cdc.gov/ncidod/dhqp/nhsn_FAQenrollment.html.

Dialysis centers interested in conducting surveillance for adverse events often ask about the time and resource investment surveillance activities require. A hospital-based unit serving dialysis outpatients recently documented implementation of surveillance activities using the NHSN protocol (18). In their experience, the methods were easy to implement; maintenance of the activities required an estimated 2 hours of staff time per month. The facility observed that surveillance participation resulted in a decline in rates of bloodstream infections and antimicrobial use through ownership and engagement of staff (18).

The National Healthcare Safety Network provides tools for outpatient dialysis centers to analyze their own data so that they can monitor trends, evaluate needs for prevention, and measure the impact of their prevention efforts. Adjusting the number of events for patient risk factors, such as vascular access type, and the time period at risk is needed to compare rates across dialysis centers. The dialysis surveillance activities in the NHSN use patient-months as the adjustment for time at risk, but other methods are available and rates can be converted for comparability (19). For further information about surveillance and the prevention of dialysis-associated adverse events, please visit http://www.cdc.gov/ncidod/dhqp/dpac_dialysis_pc.html.

Disclaimer

CDC Disclaimer: The findings and conclusions in this report are those of the authors and do not necessarily represent the views of the Centers for Disease Control and Prevention. Reprints are not available from the authors.

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1. According to the Hospital Compare web site, only two hospitals (Harney and St. Elizabeth) do not report SCIP measures. Two other hospitals (Curry and St. Anthony) do not report any of the CMS quality measures.

Hospital Compare also reflects data submitted voluntarily by critical access hospitals. Critical access hospitals (CAHs) are small, rural facilities that are not eligible for the additional incentive payment established by the MMA. For these facilities, any hospital that volunteers to participate and submits cases for one or more measures can choose to have any or all of its data displayed on this website.

2. Most hospitals do not do any of the cardiac procedures. Only eight do not do any KPRO, HPRO, HYST, LAM, PACE and THOR procedures:
Blue Mountain Hospital
Cottage Grove Community Hospital
Curry General Hospital
Harney District Hospital
Lake District Hospital
Pioneer Memorial Hospital
(Heppner)
West Valley Community Hospital
Wallowa Memorial Hospital

Only five do none of the NHSN procedures:
Cottage Grove Community Hospital
Curry General Hospital
Harney District Hospital
Pioneer Memorial Hospital
(Heppner)
West Valley Community Hospital

As for which hospitals do not have an ICU, this is difficult to assess since the admin rules leave it up to them to define their ICU types. According to the 2006 AHA survey, eight hospitals have zero med/surg ICU beds:
Cottage Grove Community Hospital
Pioneer Memorial Hospital
(Heppner)
Santiam Memorial Hospital
Southern Coos Hospital
St Anthony Hospital
Tillamook County Gen Hospital
Wallowa Memorial Hospital
West Valley Hospital

NHSN Training
September 25, 2008
Conference Evaluation

Your feedback helps us serve you better. Please take a moment to rate each item by circling the appropriate number.

N=57

After this conference:	Disagree				Agree
I understand the type of infections that I will be required to report to the state using the NHSN system.	1-0	2-0	3-1	4-8	5-48
I know how to find key information (denominator data requirements, infection criteria, case finding options) in the NHSN manual.	1-0	2-1	3-5	4-21	5-30
I understand the definitions and criteria for Bloodstream Infections and Surgical Site Infections.	1-0	2-2	3-6	4-21	5-28
I understand how to enter data into the NHSN system.	1-0	2-0	3-18	4-22	5-17
I understand how to run infection rate reports using NHSN output menu.	1-1	2-7	3-20	4-19	5-10
The program met my expectations.	Little Value	1		Very Valuable	23
How would you rate the overall value of this conference?	1-0	2-0	3-3	4-22	5-32

What did you like best about the program?

The interaction & materials & instruction
Q&A
Visual presentation of NHSN website and adding data
Demo
Great handouts/manual, speakers very knowledgeable!
Near airport – free shuttle
NHSN screens
Learning that all denominations for total knees need to be put in NHSN
Tips and tools for entering data
Manual
Walking through the forms
Networking with Oregon ICPs
Speakers/data information
The whole program was great
Practical points on how to do it as well as discussion around HAI.
Good overview/review
Needed to be longer – all day or 2 days

Great overall introduction to the NHSN reporting and explanation w/good visuals.
Mary Shanks and Art were both very good presenters
Basic, usable info
Handout/speakers
Ability to ask questions, network
Excellent presentations by Mary and Art – thank you! Thanks for your hard work
Sharing of info, scenario's etc
Great presentations!
All great. I had watched all the webinar's so this was a great follow-up
Practical information – how to
Very practical – expertise of all speakers
Great information. Great lunch – served quickly/efficiently
SSI presentation
Very explicit & descriptive slides
Clarification of data entry great workshop!
The actual how to's - nuts & bolts – Beginnings
Clarification of NHSN modules as they apply to Oregon state reporting
The case scenarios
Discussions about what to include/not include in reporting & meeting colleagues
Live practice sessions – clarification of definitions
Updated info and the report running as I've had to teach myself and my reports are not very usable.
The demonstration by Art of actually entering data
Clarification of definitions as discussed by presenters & audience
Timely, important
Length, lunch was very good
This has really helped me to understand how the reporting will occur

What needed improvement?
Make the printouts a little larger – for ease of reading
More space at tables
More space/larger tables – seating was too cramped
Too much data – too little time
CBGB reporting could have been included in screen examples
The presentation in CABG was disjoint
Opportunities to come to consensus on what is/is not an infection
Speaker explaining how to enter in data & run report
More spacious room. Group hospitals by size for improved networking
Tell attendees earlier which modules (NHSN) should have been reviewed before coming to conference
A little abstract for those just getting up and going.
Nothing
Many people are very familiar with the definitions of infection so this aspect should be kept to a minimum or covered in a different forum.
Very nice- always better temp control in room
Program is "bulky"; needs streamlining

A lot of information, hope to remember some of it when I start NHSN
I would have saved data analysis for another day or monthly meeting
*Clarify what the GROUP is!
The actual putting info into the system and what happens when you make an error? You have saved data and realized your error
Clarification of definitions
More of those presentations; list serves
Just continue
Some handouts printing very small and hard to read

What things can be done to help you or your hospital comply with the new Oregon HAI Reporting Law?
Study
Continue training via webinar, etc. Create a Q&A list on APIC-OSW website
Provide an online message board for Q&A through local reps.
We need our hospital IT dept to provide NHSN-compatible denominator summaries
More assistance – OHS needs to let CEO's know the amount of work expected by ICP and that additional help will be needed
Get new IT department
A follow-up conference perhaps in mid 2009, for problems encountered with NHSN
Has the state considered how infection control programs are going to support this financially? If not should this go back to the legislature!
Clear communication of consequences when NHSN downtime causes late reporting
Would like help creating a report to pull info from what we report already to fill in the NHSN data
Using APIC listserve? (local) as networking and assistance in troubleshooting HAIs would be great
More info / when used program
Share forms, etc that have been developed for use for efficiency
More support from hospital administration with more hours for the ICP as well as IS assistance
Letters of enforcement to CEO explaining "burden" on IC people also the fines so they know the help is crucial to do this
Ongoing info as new infection types need to be reported. Strategies/experiences of those people who have already been collecting data (for those who aren't collecting it yet)
Do the modules. Get the certificates
Continue ed, ongoing support for questions that arise as doing modules, entering data
Another letter to CEO's to remind them
Provide needed IT programs (most of us don't have electronic medical records)
Importing data to NHSN file, additional case studies for definitions

Notification of physicians related to public reporting, IT training for automatic population of fields, webinar closer to reporting deadline, questions answered from specific source
Emphasize that the fines for not complying – spend that money on hiring data entry people so ICP's don't have to do it all. Provide more classes/info like this with APIC chapter
CEO/CNO need to recognize ICP does not simply try to find things to look important – but this is important
More classes on definitions – we all need to report the same
List of experts and resource folks
Keep sending info to hospital administrator
Designate data – entry person. Get IT tuned up for the needed resources
Surgical procedure data electronic upload to NHSN
Nothing at this time. I'm sure questions will come up.
Step by step clarification for Oregon. NHSN instructs that we need to confer rights to the group – we learned here we don't need the group module. Still a little confusing. I thought the state was the group! Please clarify this when you send out info…what is the group exactly?
More programs and follow-up
Come to Eastern Oregon St. Anthony Hospital to have a working class on the "How to do this process", for all hospitals from Ontario OR. to Arlington OR.
Training for IT departments!!!!
OAHHS send periodic reminders and encourage hospital leaders to provide support to infection control staff.
I think we are doing ok
Need more staff – minimally to enter data; ideally to do surveillance
Have more meetings to help us be consistent with definitions
Let administration know that extra personnel will be necessary
Webinar to help CEO/CNO/CCO understand mandatory, aspect of this reporting
Give us a template for denominator information

Other Comments
Thank you for the presentation and guest speakers
Thanks much
Yikes! This is huge!!!
Thank you for doing this. I'll look forward to additional sessions
The room was too small for the number of people. The cost for the conference, especially with lunch was very good. Nothing about the "group" of you was discussed. Very grateful to APIC & OAHHS for presenting this information!
SST= Surgeon code in CSU format – when will be available? Would have preferred to have this information months ago
Short and sweet – reporting starts 1 of 2009. Exactly what do I need to report – you have small hospitals represented here today with no ICU and limited/surgical procedures – mainly outpatient. We do not put in central lines however we do get patients who have permanent central lines as patients – how does this relate

to our need to report. Web meeting and small hospitals only to discuss our issues specifically the CAH of Oregon.
Would like to get info from other hospitals using NHSN on how to best get demon. data, data entry – how to do most efficiently. This process is going to probably be close to overwhelming for C.A. hospitals and infection control department of 1 part-time person!
Need more training/hands on. Small hospitals don't do CABGs. With an average daily census of 6, how many of these items occur? How useful is information from small CAH?
Future topics for APIC chapter discussion: Discussion on SSI Risk Index categories, Art Ashby and IT people discuss how to do the file dumps/populating the SSI demographic fields, Future topics to give people opportunity to get questions answered on how to code infections with examples from their own settings (example is this a CL-BSI or not, patient had…) tips on how to get the data (line days etc)
Concerned about "post discharge" identification of infections – Kaiser can capture this data – our rates will look higher as a result
Thanks for all you did to make this a great educational experience. Yummy lunch and cookies too!
Great job. Thanks. Future – offer training on pooled values, means etc. so people w strong stat background can interpret data reports
Great introduction – look forward to "hands on" appreciate help of APIC members
Mary & Art did a fantastic job!
I had already completed the 16hrs of online training, very helpful
Thank you for an excellent presentation
I would love it if NHSN could expand their time out to an hour at least as I get frequent interruptions and end up entering data multiple times. Anyone addressing facilities w/denom #'s that is too low to get meaningful data? Thank you for lunch too.
Facility nice, lunch was good, Support staff very pleasant. Enjoyed listening to Art, nice to meet Diane Waldo, and also ICP's in close areas to our facility.
Would like more info on getting reports pulled out of our EMR.