



Fluoro Log Book and Benchmark Guidance OAR 333 –106-0205(10)

Fluoro Log Book

Facilities that utilize fluoroscopy shall maintain a record of the cumulative fluoroscopic exposure time used for each examination in an accessible log. This log will be reviewed during your facility's x-ray inspection. The log must indicate the following information:

- patient name
- type of examination
- date of the examination
- fluoroscopist's name
- fluoroscopic room in which the examination was done
- total cumulative fluoroscopic on time

Benchmarks

Each facility shall establish cumulative fluoroscopic on-time benchmarks for at least two of the most common types of fluoroscopic examinations performed at the facility's site **in each** of the following categories:

- Routine procedures performed on adults
- Routine procedures performed on children
- Orthopedic procedures performed in surgery
- Urologic procedures performed in surgery
- Angiographic procedures
- Interventional cardiac studies

If your facility does not do more than one exam in any of the above categories you will only be required to do one benchmark in that category. Your facility may also choose to benchmark more than 2 exams in any category.

Tips for Determining Benchmark Times

A benchmark is the amount of time set by the facility for a specific procedure derived from the cumulative amount of "on-time" normally used to perform that specific procedure at the facility. The benchmark is used to track outlying fluoroscopic times for that specific procedure. A benchmark quality assurance study is to be performed for each fluoroscopist at the facility who performs that exam.

There is no perfect formula for setting benchmark times. A lot depends on what exams your facility performs and how many. Setting a blanket 5 minute benchmark for all exams does not comply with the intent of this rule. Do not choose the average as the benchmark time because about half of the exams will always be above the benchmark. Using the third quartile or 2 standard deviations from the average may be an effective way to monitor exam times. The more data a facility reviews to help establish benchmark times, the better they will be able to determine what is appropriate. The benchmark times should be reviewed and approved by the radiation safety committee, radiologist or medical physicist.

Annual Review

Each facility must develop and perform periodic (not to exceed 12 month intervals) quality assurance studies to determine the status of each individual fluoroscopist's cumulative on-time in relation to the fluoroscopic benchmarks established for individual fluoroscopic examinations.

Appropriate action must be taken when the established benchmarks are consistently exceeded, as defined below. The Radiation Safety Committee (RSC), supervising radiologist or health physicist must review the results of the cumulative fluoroscopic on-time Quality Assurance Study. Corrective action must be documented regarding those individuals who have exceeded the benchmarks established by the facility for a particular procedure more than ten percent of the total times the individual performed the procedure during the study period. Documentation of the review, as well as any corrective actions taken, must be available during inspection by the Authority. Corrective actions, at a minimum, include notification of the individual and a recommendation that the individual undergo additional coaching, training, etc. in the safe use of fluoroscopic equipment in order to assist them in reducing their cumulative fluoroscopic on-times.

Examples of benchmark review outcomes:

- If all of the radiologists are exceeding the established benchmark, it is possible the benchmark was set too low. Document any discussions or decisions and make appropriate adjustments to the benchmark.
- If 10% or more of one of the radiologist's exams are exceeding the established benchmark then appropriate action must be taken and documented. (keep in mind the total number of exams the radiologist completed)
- If a radiologist only performed the exam twice and one exam exceeded the benchmark (this would mean the radiologist exceeded the established benchmark 50% of the time), corrective action may not be warranted. Simply documenting the reason is appropriate, i.e. "only two exams performed, no action taken at this time."

Make sure the annual review is documented with either a signature from an imaging manager, supervising radiologist, radiation safety officer, or whoever the facility determines is appropriate. Ensure this documented review is available during your inspection by the Agency.

It is recommended that facilities have a written policy outlining the fluoro on-time benchmarks, review process and corrective action that will be taken.

Current Oregon Administrative Rules (OARs) and documents can be found on our website www.healthoregon.org/xray

If you have any questions please call Radiation Protections Services at 971-673-0490 and ask to speak with a hospital qualified X-Ray inspector.