

ERRARE HUMANUM EST

It Is Inhuman Not To Make Mistakes

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Mistakes and Errors in the Swedish Health and Welfare Sector

It is human to err. If you never make mistakes you are not human. Furthermore, you can learn a lot from mistakes.

In the continuing work to improve the radiation protection (safety) culture and reach optimized protection, ALARA, the feedback of experiences is a most important tool. The Swedish Radiation Protection Authority (SSI) has a policy for error reporting and feedback for everyone involved in radiation procedures at medical institutions.

In Sweden, the license holders must report all accidents and important incidents regarding radiation to SSI. To be able to fulfil the ALARA-principle it is important that all medical institutions learn from these reports, and SSI pursues several paths in this regard:

- SSI has a database of all reported mistakes to promote simplified analysis
- SSI puts principally interesting cases on its website
- SSI continuously informs of mistakes at meetings and conferences
- The checking of error management is an important part of SSI's inspections

It is important that hospitals think ahead of what can happen; the expression pre-analysis is sometimes used, and what to do when something happens?

It is also important to have action plans for all types of predictable errors.

Examples

1. A hospital has two gamma-cameras, one is used for myocardial scintigraphy only and the other one is used for all types of examinations. After lunch the camera used for myocardial exams stopped working and all patients who had received radiopharmaceutical injections were sent home to return another day for a new injection.

This is an example of a situation that you can predict and where you can have a plan. In advance you can try to make myocardial examinations on the general camera with voluntary patients after they have done their ordinary examination. Then you know how to do things and what the differences are in the final images.

2. When examining the cerebral blood-flow of two patients there were no uptake in the brain, and they were sent home. Error analysis started the next day and the cause of the error could not be found. If the hospital has had a plan to follow, error analysis would have started the same day and the cause might have been found and the error not repeated.

SSI expects all hospitals to have a plan to follow, should the distribution of activity be other than expected.

3. An Excel sheet was used to calculate the uptake and the effective half-life of iodine in the thyroid.

Incorrect writing of the examination date led to incorrectly calculated values. They were later used for the calculation of the treatment activity and the dose was 40% too high. In many programs it is difficult to write a date correctly. It is important that hospitals test all locally developed programs and that there are functions that check for errors. Hospital staff needs extensive training and sensitive parts of the program should be pointed out.

To help hospitals understand what errors can appear, selected examples are being put on SSI's website.

All reported errors are also recorded in SSI's database. Hospitals tend not to report all errors and mistakes to the authority.

At a national meeting early fall of 2004 medical physicists were encouraged to send in all documented incidents and errors to SSI. Since then the number of reports have increased from 6 per year to 27 during 2005.

Approximately half of all reported errors have been considered as human errors, negligence or lack of knowledge (education).