Title: Awareness and use of Diagnostic Reference Levels in radiography: a snapshot of practice across Europe.

Keywords: radiography, radiation dose, Reference levels, ALARA,

Background:
Use of Diagnostic reference levels (DRL) has been shown to reduce the overall radiation dose and the range of doses observed in clinical practice however the ways DRL are being developed varies. Data from 2014 highlights that DRL for adult x-ray examinations have been established in 72% of the 36 European countries, whilst only 39% of the countries have established DRL for paediatric x-ray examinations. For adult DRL, 77% are based on national dose surveys in Europe while the rest are based on published values or recommendations e.g. EC recommendations

Aim:
The aim of the study was to investigate current knowledge and use of DRL across Europe through the use of a questionnaire.

Method:
A random selection of 50% of countries (n=17) which were members of the European Federation of Radiographer Societies (EFRS) were selected from sealed envelopes. The educational institutions in each country were contacted via their contact details supplied on the EFRS website. Each educational institute identified clinical radiographers to complete a survey via SurveyMonkey. Descriptive statistics were performed with Excel and SPSS version 21.

Results:
Completed questionnaires were returned from 12 out of the 17 different countries selected. The use and awareness of DRL was encouraging, with 74% of respondents using National DRL and a further 13% using LDRL, this equated to 87% using DRL. An additional 13% of respondents were not aware of DRLs in use.

Conclusion:
Staff awareness of DRL needs to be increased to ensure DRL are adhered to both locally, nationally and internationally. Smaller countries without DRL can compare their typical patient dose quantities in present practice to DRL already established in other countries.