

## UK Laboratory Intercomparison on Internal Dosimetry

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A laboratory intercomparison for internal dose assessment from a variety of intake scenarios is described. This is the first UK intercomparison using the revised ICRP Human Respiratory Tract and biokinetic models. Four United Kingdom laboratories participated and six cases were assessed. Overall, the agreement in internal dose assessments between laboratories was considered satisfactory with 79% of the assessed committed effective doses,  $e(50)$ , for cases within a band of  $\pm 40\%$  of the median value. The range (highest/lowest) in  $e(50)$  estimated by the laboratories was smallest (1.2) for a case involving inhalation of  $^{137}\text{Cs}$ . The range was greatest (6.0) for a case involving a wound with, and possible inhalation of,  $^{238}\text{Pu}$ ,  $^{239}\text{Pu}$  and  $^{241}\text{Am}$ ; the variation between laboratories in assessment of intakes could not be considered to be satisfactory in this case. Judgements on the most appropriate data to use in estimating intakes, choice of parameter values for use with the ICRP models and allowing for the effects of treatment with DTPA were important sources of variability between laboratories.

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