

# Letters to the Editor

## DOSIMETRY

D. E. Raeside's article, "Film Badge Dosimetry Versus Luminescence Dosimetry" (*JNMT* 3:34-39, 1975), was one of the most biased and misleading articles I have read in recent years.

In my opinion Dr. Raeside has committed the following errors, which should be avoided by a writer for a technical journal: the literature search was apparently conducted to prove preconceived conclusions; the value of a dosimeter was totally equated with accuracy; and the only parameters considered or reported were those that clearly supported the author's prejudice.

I would like very much to submit the following statements for Mr. Raeside and your readers to consider before discarding all their film badges.

(A) The literature consistently refers to a -50 to +200% range of accuracy for film badges. The work that generated these results is now over 10 years old. No comparable study of commercially available TLD monitoring services has been reported, nor have I seen more recent studies of film badge comparisons done on nuclear medicine personnel.

(B) On two occasions we have given known doses to

film badges routinely used by medical personnel and sent them through regular channels for reading and reporting. The greatest error seen was a 20% error at the 50-mrem level. Admittedly, this was a small population (a total of ten badges) and the radiation source ( $^{226}\text{Ra}$ ) constitutes a very limited test. Since these tests were done within the past 1½ years using highly reputable companies, I feel that to condemn the film badge so totally is irresponsible.

(C) Dr. Raeside did not make any reference to the practical problems associated with either dosimeter. If one wishes to use either film or TLD he must consider the advantages *and* disadvantages from a pragmatic point of view.

In conclusion, I would like to say that both systems are useful but only within the limits dictated by physical and practical factors associated with their use under specific circumstances by a specific group of people.

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## THE AUTHOR'S REPLY

First let me state that my analysis of the current state of personnel dosimetry followed a careful, open-minded study of all of the available *comparative* literature. Why didn't I include any references pointing to the superiority of film as a personnel dosimeter? The reason is simple: I found none. Not a single comparative

study endorsed such a viewpoint. On the contrary, the accumulated evidence indicated that film is deficient in comparison to luminescence dosimeters. Now to the specific points raised by Mr. Vandergrift:

(A) Not all of the comparative studies cited were 10 years old. Why does Mr. Vandergrift ignore the more