

ERRATA

Raphex 2015 Diagnostic

- D12** **The correct answer is C, not B.** The standard deviation of the difference of two counts (total minus background) can be shown to be the square root of (total plus background). In this case, $T=25$ and $B=4$. This means the estimated error in the net counts is the square root of 29, which is 5.3. The answer book incorrectly says to just *add* the standard deviations of the two counts, which would give an incorrect result of 7.
- D16–18** **The entry in the table on p. 5 for row 1, column 2, should be 30, not 130.** With this change, the answers are correct as printed.
- D23** **The correct answer is C, not D.** Though the wrong letter is shown in the answer book, the explanation correctly lists the answer as “1.0 to 2.0 Sv.”
- D59** **The correct answer is C, not D.** The answer book explanation is correct.
- D62** **The correct answer is B, not D.** The measured SUV would be approximately 2x *higher*, not 2x *lower*. In the last line of the answer book’s explanation, replace the words “one-half of” with “twice.”
- D72** **Both B and C could be correct.** If the collimation were to be closed down to the same area of the patient, then the scatter to the operator would remain about the same, so answer B would then be correct. However, if the collimation were to remain the same in both cases, then the patient entrance dose and the scatter to the operator would be reduced and answer C would be correct, as given in the answer book.