

## References

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## True/false units of assessment in physiology and pharmacology

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In our assessment of students in physiology and pharmacology, true/false items make up 25% of the total credit for Part 1 of the B. Med. Sci. course (2 years). They normally take the form of a series of statements requiring a decision on whether each is true or false; students may abstain. The decision is recorded by marking a box opposite the statement. The statements are designed to test factual knowledge, grasp of general principles, interpretation or problem solving ability.

The students' responses are processed using an optical mark reader (Data Recognition DT3) and a DEC PDP 11/35 computer. The computer print-out gives details of each student's performance on each statement and also provides information on the mean mark for each statement and the proportion of right and wrong responses and abstentions. The proportion of students in the top quartile (on the basis of the total mark for the 50 item test) and the proportion in the bottom quartile giving a correct response is given for each statement (cf. Crow, Diamant & Gold-

smith, 1969; Paton, Stanley-Jones & Bell, 1971). From these data a retrospective assessment of the severity and predictive ability of each item may be made. Adverse item characteristics, for example, high abstention rate with poor predictive ability, may indicate defects such as ambiguity in the item text. If the text itself confirms this, the item may be deleted from the test analysis and amended in the item bank.

True/false statements are banked on individual cards together with their computer print-outs for the previous occasions on which they have been used. The cards are laid out so that a sequence can be overlapped for copying on a Xerox machine, avoiding transcription errors. These cards also carry explanations of the correct responses to the statements; the statements, correct responses and explanations are displayed publicly for some days after the assessment has been taken. We believe this opportunity for feedback enhances the educational value of assessments.

## References

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## Diuretic testing

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