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PAGE cut-off point considerations

The following chart gives some examples of the sort of considerations that clinical governance groups might need to take into account when determining the cut-off points of PAGE in their emergency department(s). These are hypothetical examples designed to demonstrate the clinical applicability of sensitivity and specificity of PAGE.

Hospital 1: cut-off for admission = 0 points

Sensitivity = 100%; Specificity = 0%

All children admitted; no children discharged. Would correctly predict all admissions but would not correctly predict any discharges. Hospital would be overwhelmed with admissions. Clinically unsafe as no children discharged.

Hospital 3: cut-off for admission = 9 points

Sensitivity = 29.8%; Specificity = 95.3%

With a well-staffed children's community nursing team to act as a safety net, there is more confidence to "risk" some children being discharged who might need to be brought back or concerns addressed by the team.

Hospital 5: cut-off for admission = 23 points

Sensitivity = 0%; Specificity = 100%

Only admit children with a score of 23 or above. Would correctly predict all discharges but would not correctly predict admissions. Clinically unsafe as too many children discharged.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Hospital 2: cut-off for admission = 6 points

Sensitivity = 59.5%; Specificity = 80.9%

A sensitivity of almost 60% means this score would correctly predict the majority of admissions, but at the expense of admitting some children who could have been discharged (specificity almost 81%). A hospital using 6 as the cut-off point may not have comprehensive community services in place to follow-up children who are discharged or may have a low-risk appetite.

Hospital 4: cut-off for admission = 15 points

Sensitivity = 3.3%; Specificity = 99.9%

Only 3.3% of admissions correctly predicted but almost 100% of discharges correctly predicted. May generate clinical governance concerns about insufficient children, with potentially significant conditions, being admitted – with the potential for their deterioration in the community. May require comprehensive community follow-up of children discharged or a period of prior observation.