

Frequency of laboratory no-test outcomes: an evidence-based practice poster to reduce common errors in drawing blood at a rural Hospital

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Background: Advances in testing technology mean that most current error in pathology is related to the pre-test (collection) phase.¹ The collection of the sample by non-laboratory personnel could account for 95% of error when best practice is not followed.¹ In the rural context, frequent rotation of relieving medical officers and nurses results in institutional knowledge being lost with staff turnover.² Due to these factors, pathology specimens may not be appropriately collected, resulting a large number of 'no-test' outcomes. A no-test specimen cannot be tested for medico-legal or quality reasons.² Consequently, patients undergo repeat invasive investigations, with increased risks associated with invasive procedures, as well as increased patient length-of-stay and associated time-costs.²

Aim: The aim of this quality improvement project was to determine the causes of no-test outcomes at a rural Hospital and develop an evidence-based practice poster in response.

Methods: No-test data was extracted from AusLab software. Results showed there were 264 no-test specimens in the year 2020, which were then grouped into causes and charted by frequency. To reduce the incidence of no-test outcomes, an evidence-based practice poster was developed as a tool for clinical staff drawing blood. The poster outlines a "3-point checklist for patient care" when drawing bloods, to reduce the most common causes for no-tests.

Results: The leading causes of no-test specimens were inappropriate tube selection for requested test (18%), mislabelled or unlabelled specimens (17%), sample clotting (15%) and insufficient volume (14%). The evidence-based practice poster is planned as a point-of-care reminder addressing the critical issues including to label and sign at bedside, check the order of draw guide against the pathology request, and to fill to the tube-appropriate volume where possible and gently invert 8 times.³

Conclusion: Causes of no-test outcomes were determined, with the majority being preventable. If there was full adherence to the evidence-based practice poster checklist, there would be a two-thirds reduction in no-test outcomes, resulting in timelier and safer patient care. Future work is required to analyse the poster effectiveness.

References:

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