Reducing Errors in Pathology Test Ordering:

Introducition

80,000 pathology tests are performed per day at BHR hospitals, blood tests forming the largest part. Errors resulting from incorrect details on a blood form could lead to the wrong result presented for a patient, resulting in harm. This risk is well known with transfusion reactions. Delay due to a rejected incorrect blood form can also lead to patient harm.

At BHRUT paper forms were being commonly used to order these tests, despite an electronic ordering system being available.

We aimed to identify the number of errors on these forms, and how they can be reduced by introducing electronic forms. We aimed to reduce errors on blood forms to <5%.

Method

\begin{itemize}
  \item Round 1: 20 paper forms sampled and 13 data entry points examined for errors
  \item Round 2: 10 paper and 10 electronic forms sampled and examined for errors
  \item Round 3: 20 electronic blood forms examined for errors (against the Medway patient data system)
\end{itemize}

Timing

Electronic form completion and paper form completion times were compared and their legibility assessed.

Results

\begin{itemize}
  \item From round 1 to 2 errors fell from 5.83% to 3.75% (2.09%). In round 3 there were no errors detected 0%.
  \item The time to complete blood forms electronically was significantly quicker than paper forms.
\end{itemize}

Error Breakdown

\begin{itemize}
  \item Type 1 error: form mostly legible
  \item Type 2 error: form partially legible
\end{itemize}

Legibility Errors

\begin{itemize}
  \item Round 1: 15, Round 2: 10, Round 3: 5
\end{itemize}

Conclusion and Recommendations

Ordering blood forms using an electronic blood ordering system is a key step in ensuring patient safety and so key results are obtained and attributed accurately. We have demonstrated that ordering blood using electronic forms is a superior, safer system compared to paper forms. There is no additional ‘cost’ in terms of time to complete forms. We recommended and implemented electronic-only forms on an acute medical ward in light of this QiP (in advance of hospital wide policy.)