

5 YEAR TRENDS IN BLOOD TRANSFUSION PRACTICE AT EAST SURREY HOSPITAL

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Introduction NICE guidelines¹ on red cell transfusion recommend consideration of:

- >Single-unit transfusions in patients without active bleeding
- >Transfusion if haemoglobin level is <70g/L
- >Treatment of iron deficiency where present, instead of red cell transfusion, unless the patient is compromised

Methods This was a retrospective cross-sectional study. We compared data collected annually on all patients who received red cell transfusion over a 2 week period, from 2014-2018, at East Surrey Hospital. Data collected from blood bank transfusion records, and from electronic patient records (Cerner, APEX, and Patient Tracking System). Data included:

- Number of units of red cells received by each patient
- Indication for transfusion, if documented
- Which specialty the patient was under
- Location of the transfusion
- Whether the transfusion was mentioned in the discharge letter to the GP

Results (I) The proportion of patients receiving single unit transfusion has improved each year, from 19% in 2014 to 59.6% in 2018 (Figure 1)

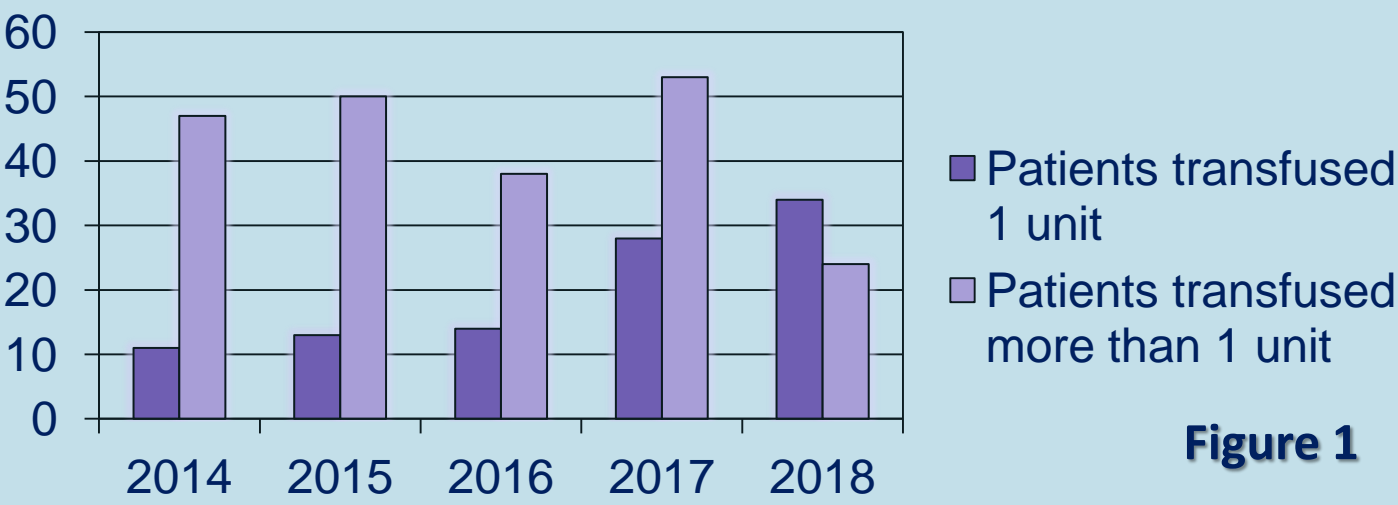


Figure 1

The average number of units transfused per patient has fallen from 2.2 in 2014 to 1.6 in 2018 (Figure 2)

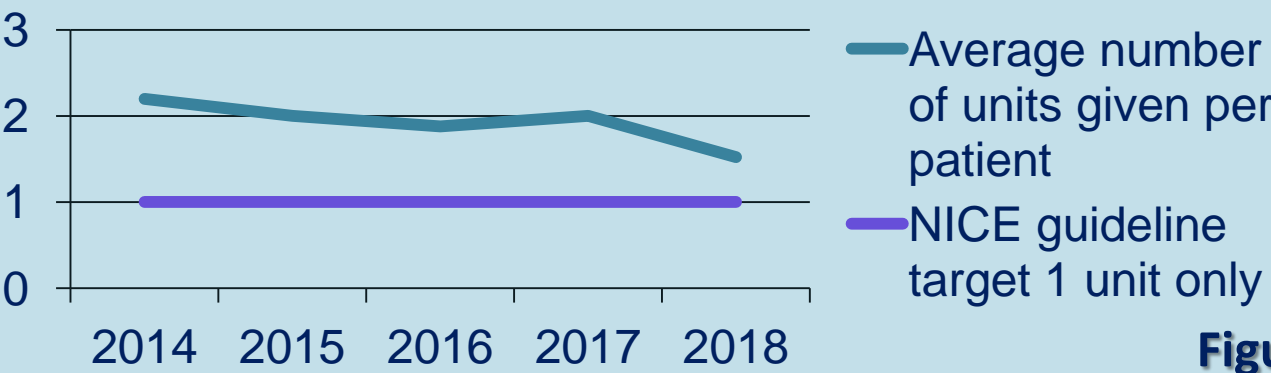


Figure 2

The proportion of patients transfused with a single unit has risen (Figure 3)

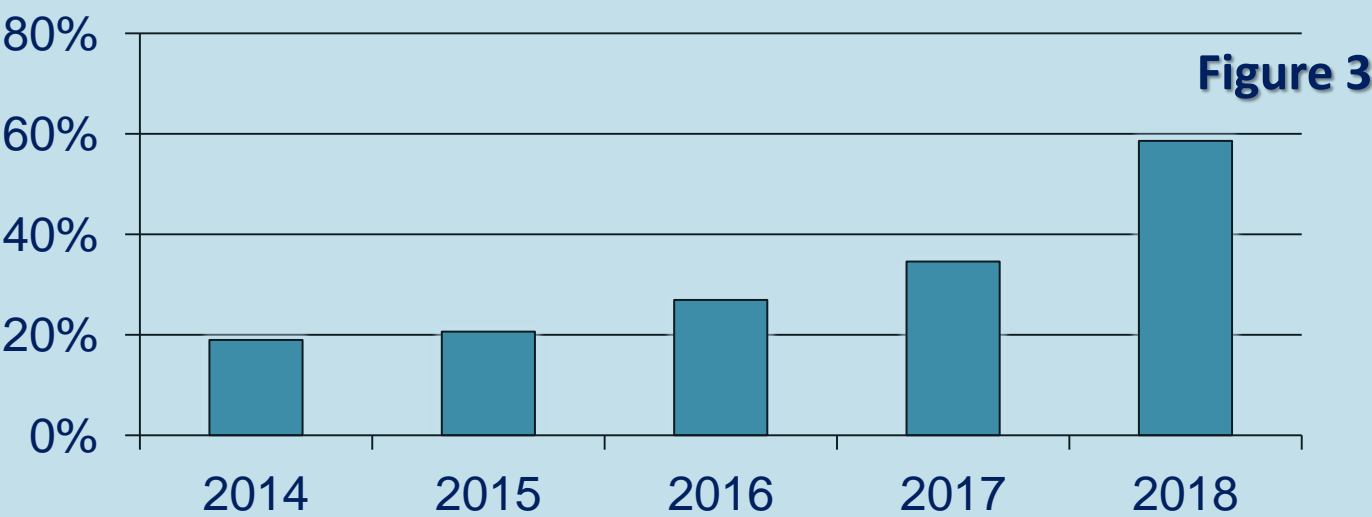


Figure 3

Results (II) Total number of units transfused per year fell from 2014 to 2018 (Figure 4)

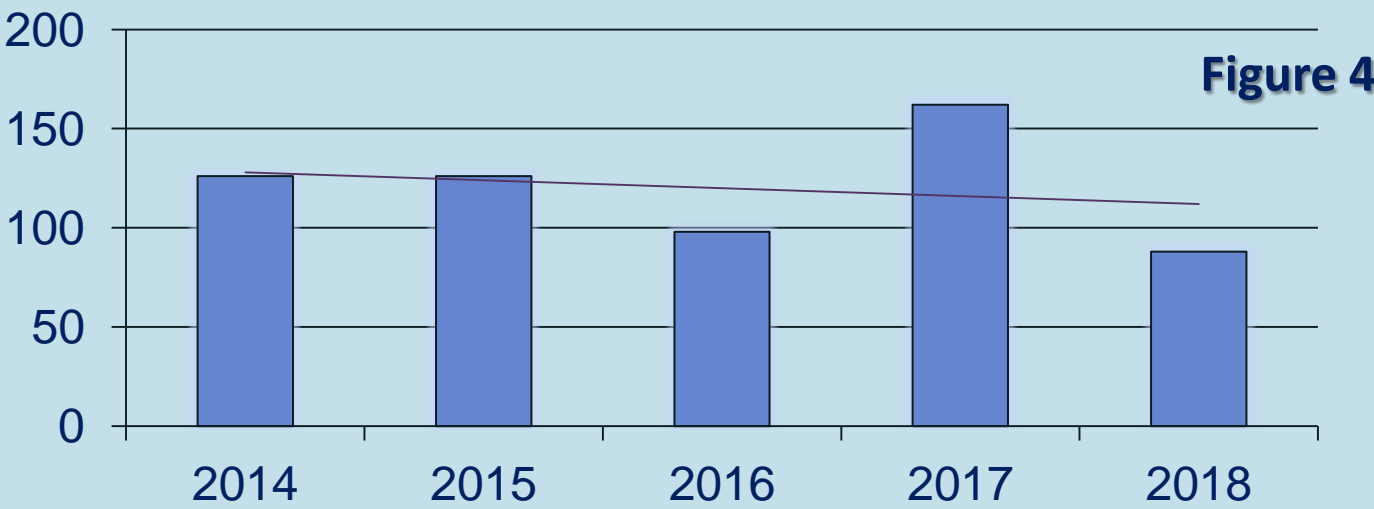


Figure 4

We found certain areas requiring improvement, such as documentation of transfusion at discharge. In 2018, of the 58 patients who received red cell transfusion, 8 (13.7%) had no documentation of this in the discharge letter.

Analysis of location of transfusion and specialty in 2018 revealed that patients receiving the most transfusions were:

- General surgical patients (11 patients, 19 units of red cells)
- Medical patients in A+E (6 patients, 12 units)
- Trauma and orthopaedics (6 patients, 8 units)

Those receiving the fewest were geriatric inpatients (1 patient, 1 unit)

Discussion These are encouraging results. There has been decline in the number of units transfused annually, and increase in proportion of patients receiving a single unit transfusion, in keeping with NICE guidelines and local policy. A proportion of these patients were surgical: it is possible that surgical techniques and pre-operative optimisation of patients have improved, necessitating fewer post-operative transfusions. However, as large proportion of these patients were medical it is likely that the results represent true improvement in practice over the last five years.

There is scope for improvement of documentation of transfusion at discharge, and we are currently reviewing the electronic discharge summary software for ways to prompt doctors to record this information. Once changes are implemented, we will re-audit to look for further improvement.

Conclusion This study showed positive changes in transfusion practice over the last 5 years at East Surrey Hospital, and identified documentation of transfusion at discharge as an area for continuing improvement.

References:
1) NICE guideline [NG24]. Blood transfusion. NICE, November 2015. Available from: <https://www.nice.org.uk/guidance/ng24>