

# Development of a Paediatric haemodialysis trigger tool for children receiving intermittent in centre haemodialysis

## Aims & Objectives

The paediatric haemodialysis trigger tool (PHTT) was adapted from a recently described HTT in adults. We describe the initial findings of this PHTT developed to systematically monitor adverse events during dialysis in children receiving chronic in-centre haemodialysis.

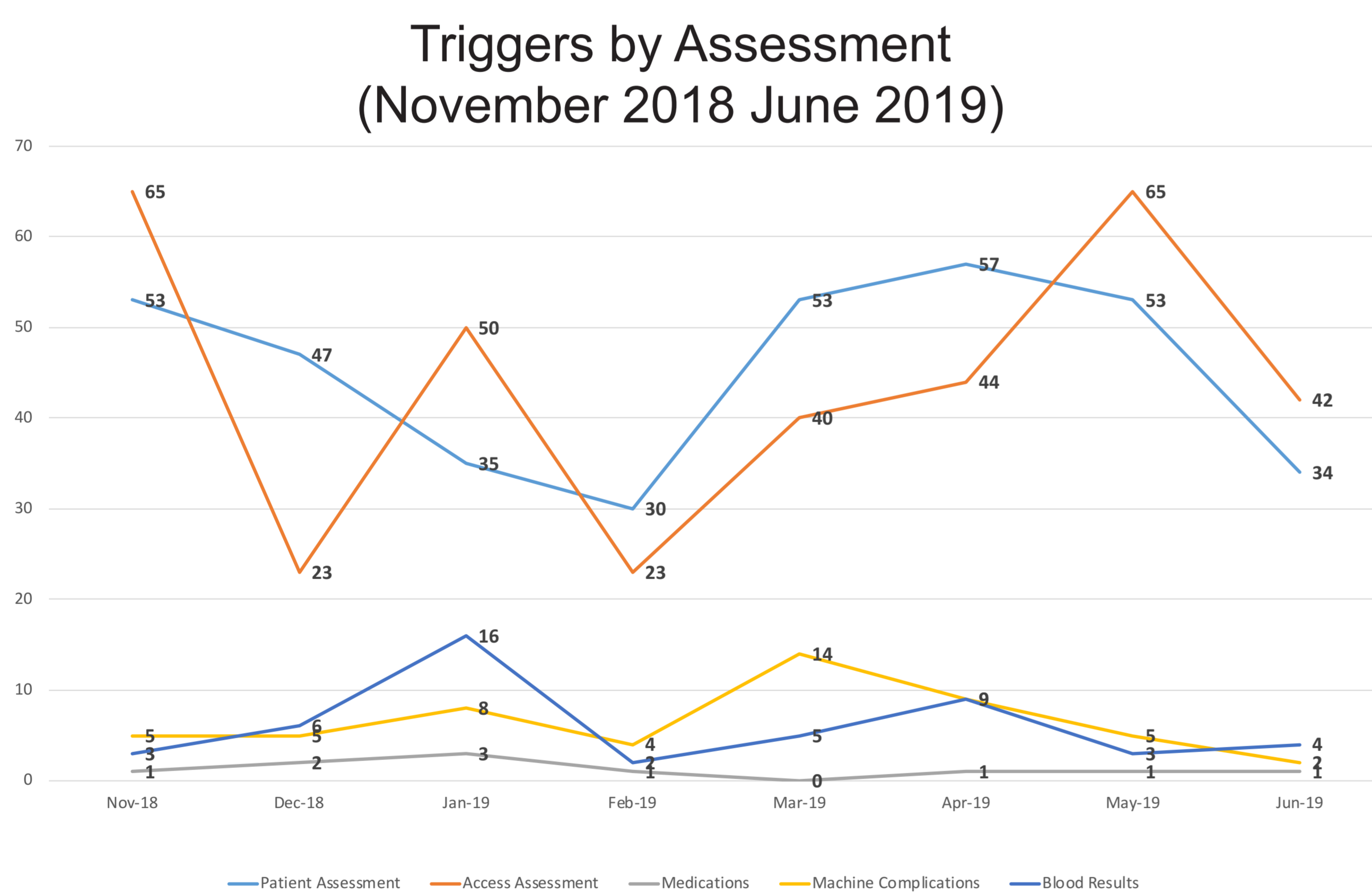
## Methodology

The PHTT comprises 5 domains including patient assessment, vascular access, medication, blood results and machine complications assessment. Trained haemodialysis nurses completed the PHTT at the end of designated haemodialysis sessions, completing the tool in <5 minutes per patient

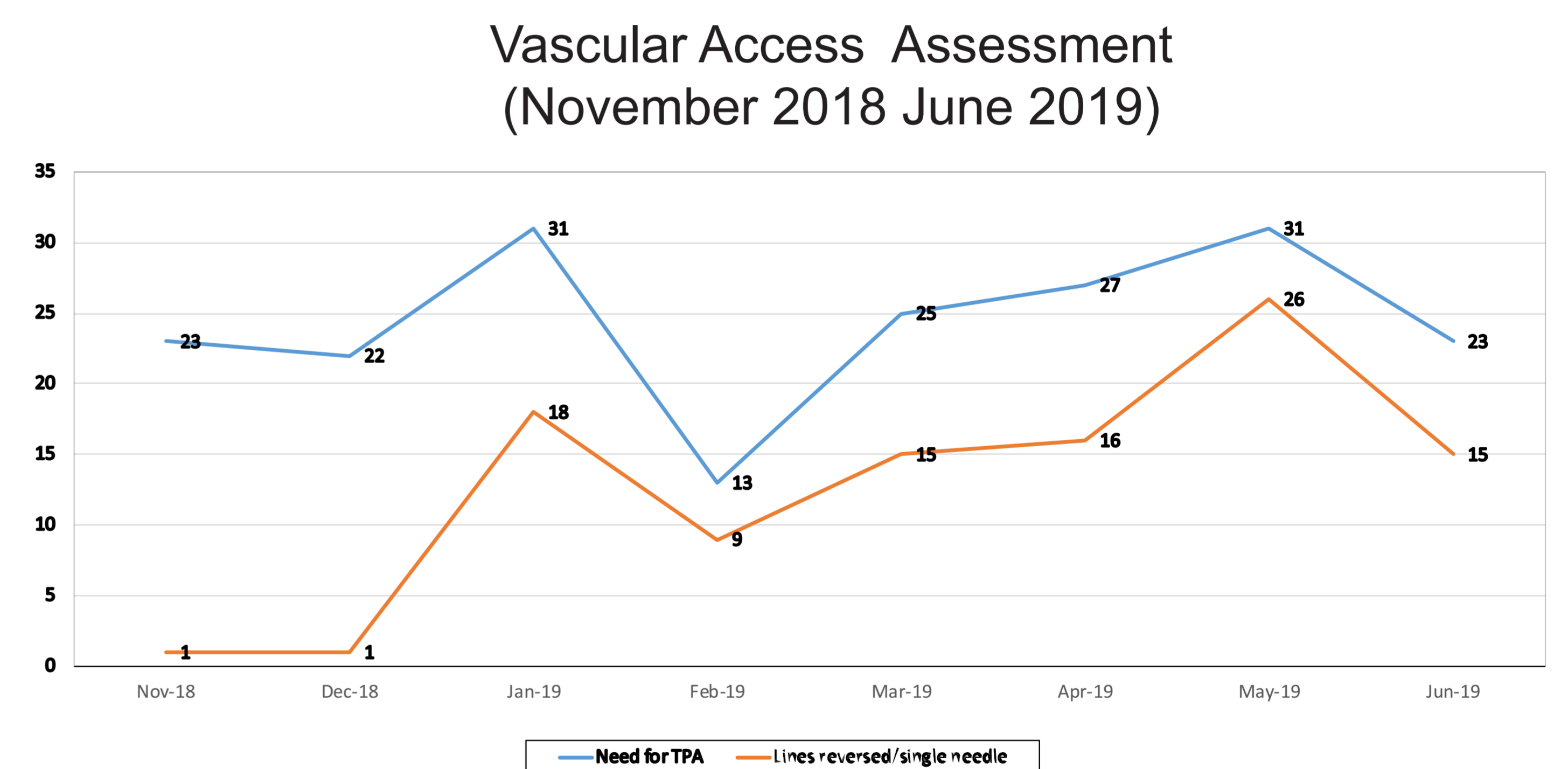
Triggers during a dialysis session were evaluated for level of harm by one of 3 following categories: (i) no harm; (ii) temporary harm requiring intervention; (iii) permanent harm.

These triggers were reviewed mid-way during team 'huddle meetings' and recorded prospectively at the end of the dialysis session.

## Results of Vascular Triggers



**Figure 1: Frequency of triggers in all 5 domains over an 8-month period**



**Figure 3: frequent vascular access assessment triggers**

Access Assessment
More than 1 attempt to place AVF needle
AVF assessment score 2 or 3
Haematoma
Infected Fistulas
Thrombosed fistula/occluded catheter
Needle dislodgement
Prolonged bleeding post HD
Single needle/lines reversed
Additional dressing change required
Exit site infection
Achieved < 75% calculated accumulative blood volume
Need for TPA
Positive blood culture

**Figure 2: components of vascular access assessment triggers**

Example of individual patient triggers for vascular assessment domain

### TRIGGER TOOL REVIEW

15 triggers – 5 TPA, 5 Reverse, 2 additional dressing change; 2 below weight; 1 for water plant failure [23.08.19-11.09.19]

17 triggers – 7 TPA, 7 Reverse, 3 additional dressing change [11.07.19-22.08.19]

21 triggers - coming in below targeted weight (3); (8 line reversed, 8 tPA given) [10.07.19 – 05.08.19]

We propose the use of a Paediatric HTT to be included as part of standard care in paediatric haemodialysis centres  
If a haemodialysis HTT were to be standardised for use across UK centres, useful audit and clinical comparison data could be obtained