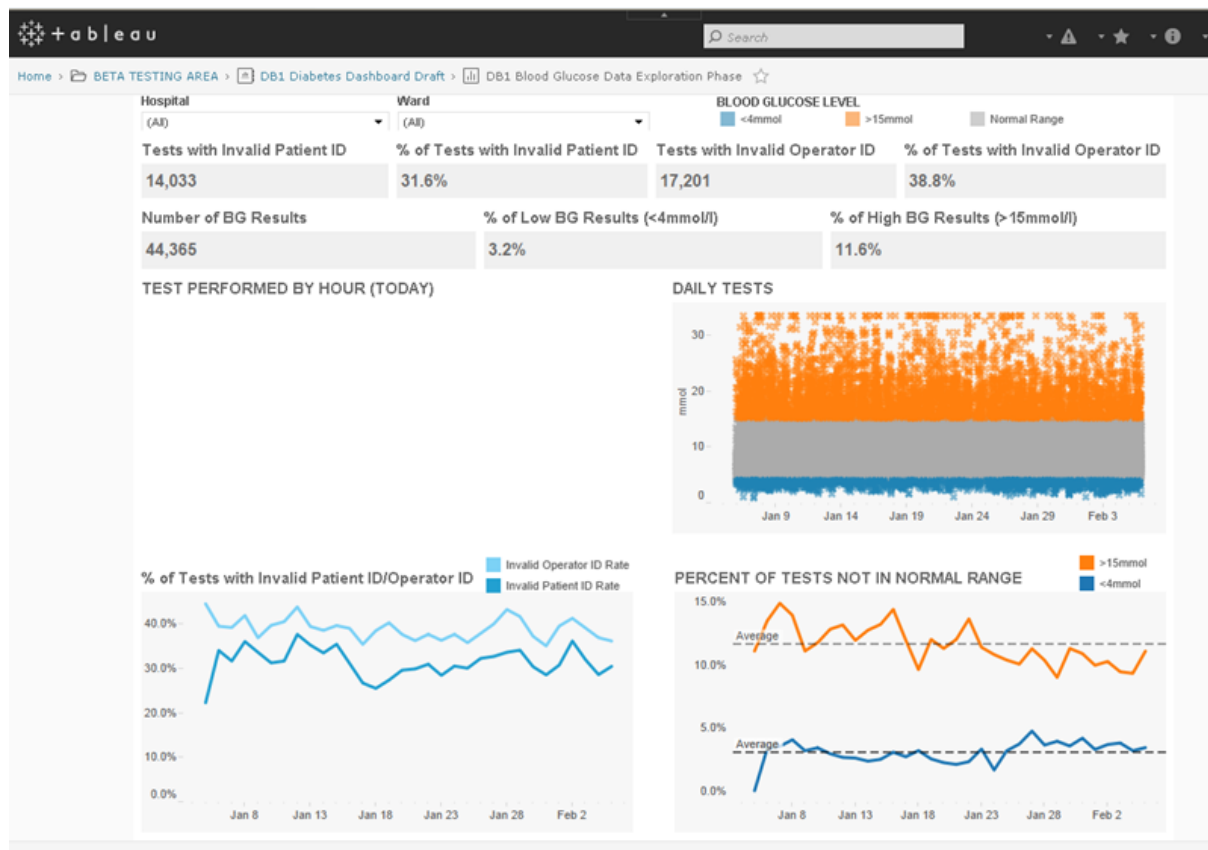


References and Appendices (submission by S Ritchie *et al*;)

References

1. The National Diabetes Inpatient Audit (accessible at <https://digital.nhs.uk/catalogue/PUB23539>)
2. Diabetes Think Check Act – toolkit (accessible at <http://ihub.scot/diabetes-think-check-act/>)
3. McEwan *et al*; Healthcare resource implications of hypoglycaemia-related hospital admissions and inpatient hypoglycaemia: retrospective record-linked cohort studies in England. *BMJ Open Diabetes Research and Care* Vol 3, Issue 1, 2015.
4. ISD Scotland Healthcare Associated infection accessed at <http://www.isdscotland.org/Health-Topics/Quality-Measurement-Framework/Healthcare-Associated-Infection/>
5. Tableau (<https://www.tableau.com/>)
6. ISD Discovery (<http://www.isdscotland.org/Products-and-Services/Discovery/>)

Appendix 1



Appendix 1

This is a screenshot of the diabetes dashboard displayed on the Tableau system. This demonstrates all bedside capillary glucose data collected for the last 4 weeks across approximately 1800 beds over 3 acute sites. This is a snapshot from the initial stages of the work with the data essentially being our baseline. It can display the data for an individual ward, group of wards, doctorate, site or whole trust (top left). Improvement is demonstrated in appendix 5.

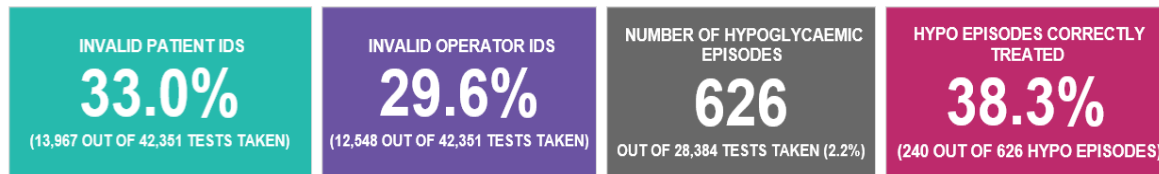
Appendix 2

GLUCOSE MONITORING PHASE 1: OVERVIEW

This dashboard presents wards with the first set of metrics in the glucose monitoring project. Use the hospital and ward filters to find the ward you are interested in.

HOSPITAL WARD VALID CHI FLAG DATE

(All) (All) Y (All)



Appendix 2

This is the focused report that is generated over a 4 week period and disseminated electronically to the clinical nurse management team, and can be disseminated to anyone who shows an interest. Based on our experience and feedback, the master dashboard is refined to drive improvement in key areas – patient and operator (staff) identifiers, the number of hypoglycaemic episodes, and the percentage appropriately treated (as determined by glucometer analysis). This is baseline data from early 2017.

Appendix 3

	% Readings with invalid CHI		% Readings with invalid operator ID		No of hypo episodes (% of all valid tests)	% correctly treated hypo Episodes	Total number of glucose readings
	May-17	Mar-18	May-17	Mar-18	May 17	May 17	May 2017
Whole trust	33	5.4	29.5	3.4	626 (2.2%)	38.3	42,351
Site A	50.8	5.2	50	6.0	244 (2.1%)	29.1	23,361
Site B	12.6	9.5	0	0.5	144 (2.7%)	46.5	6,000
Site C	10.3	3.8	6.7	0.2	238 (2.0%)	42.9	12,990
DTCA wards (~100 beds)	8.9	2.8	4.6	0.9	25 (1.4%)	60.0	2,020

Appendix 3 – Analysis of dashboard data following intervention on patient and operator identifiers (stimulated by the initial dashboard data set), and the effects of previous focused intervention to a defined ward area (DTCA). A 100 bedded area in site C had been involved in pilot work of the Diabetes, Think Check Act (DTCA) programme, and the dashboard was able to demonstrate the legacy effect on focused management of hypoglycaemia.