

"Test it; Type it; Treat it" - an education program to improve the use of the 4AT tool and diagnosis of delirium

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Introduction

Delirium is a common presentation in frail, older, hospitalised patients (approximately 25% ⁽¹⁾ of admissions, with 50%+ on surgical wards), with a high mortality (approximately 22% during the hospital stay⁽²⁾) with more associated, avoidable deaths than sepsis⁽³⁾. Delirium is underdiagnosed. The National Institute for Health and Care Excellence (NICE) recommend using a validated screening tool on all patients at risk or showing evidence of delirium ⁽⁴⁾. "Getting it Right First Time, Geriatric Medicine" recommends all patients aged 75 or more, should be assessed using the 4AT⁽⁵⁾ (a validated delirium screening tool).

Methods

A delirium pathway was developed in University Hospital Morecambe Bay Trust to embed these recommendations. An electronic 4AT form and TIME bundle were included as optional forms in the Trust's Electronic Patient Record (EPR). A program of learning events was devised to target all grades of doctor along with a poster (Figure 1) with the byline "Test it, Type it, Treat it", included in multiple presentations and in trust screensavers. Data were collected on the numbers of 4AT completed and diagnoses of delirium pre and post intervention in all patients aged 75+ years with a Clinical Frailty Score of 4+. Data were analysed with Fishers Exact Test Chi² for independence and with Statistical Process Control (SPC) charts.

(table)	Pre-Intervention	Post-Intervention	Fishers Exact
Completed 4AT (%) FIT	86.85	96.12	0.0398
Completed 4AT (%) nFIT	25.18	33.63	Non-significant
			Chi ² for independence
% Delirium Diagnosis - FIT	11.12	18.69 (predicted 25)	Non-significant
% Delirium Diagnosis - nFIT	9.11	12.63 (predicted 25)	Non-significant

Chart 1
Number of 4AT forms completed per month, FIT

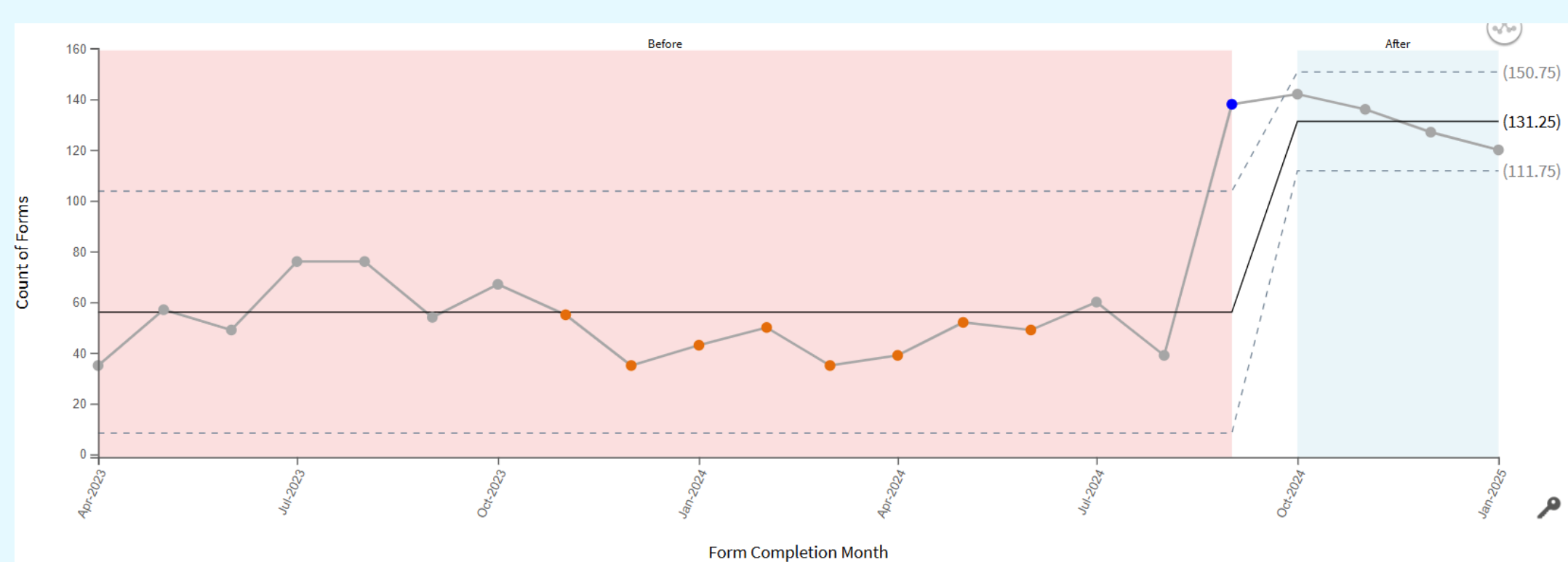


Chart 2
Number of 4AT forms completed per month, nFIT admissions

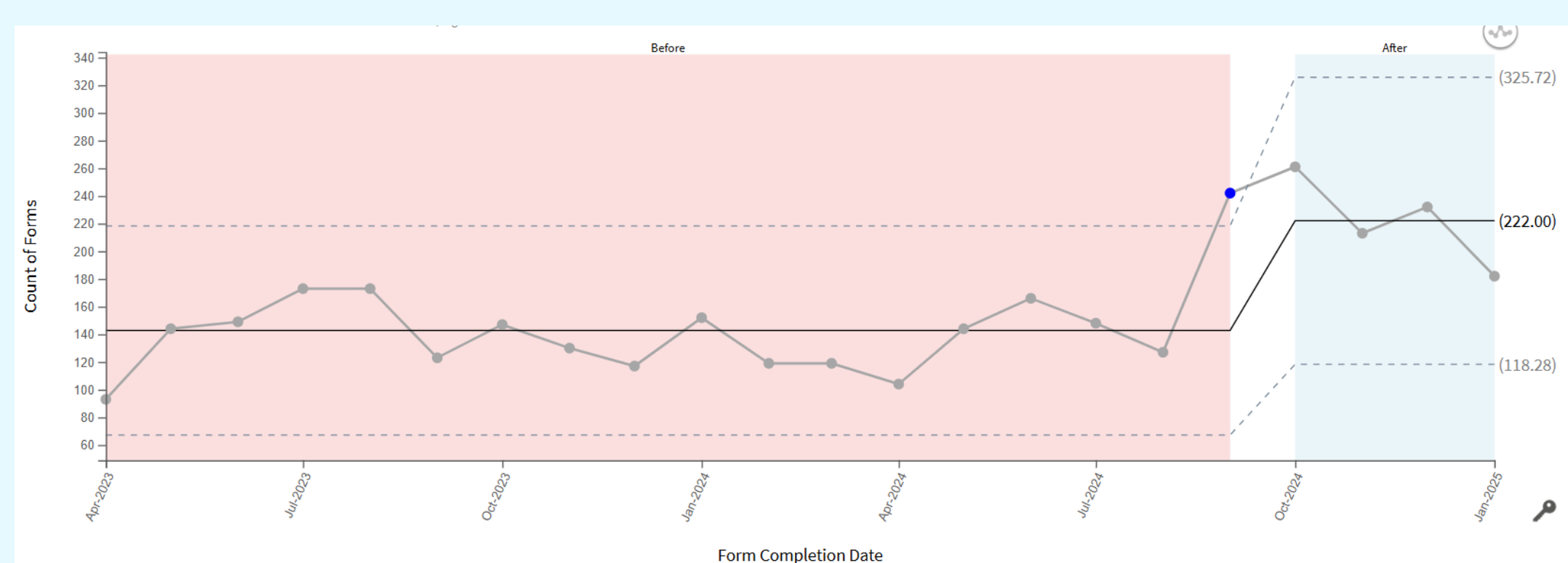


Chart 3
Number of 4AT forms completed per month, ED patients

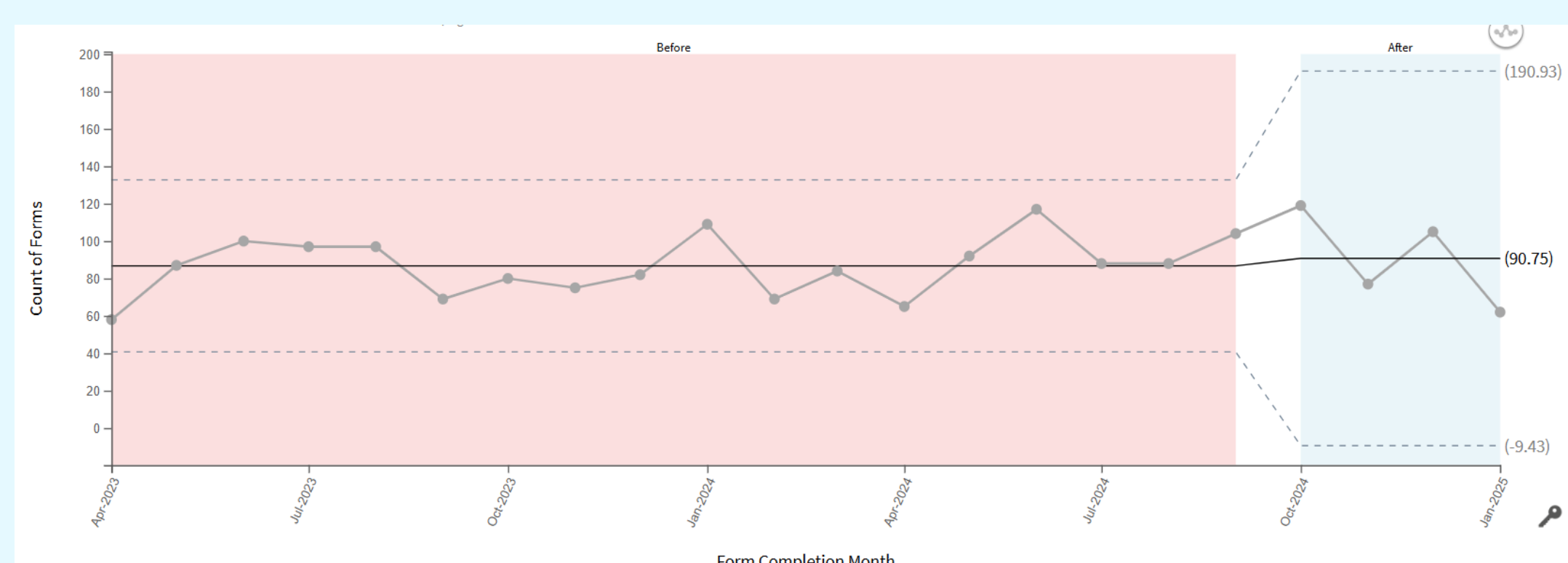


Figure 1 – 4AT Poster

Results

Before the education program, the Frailty Intervention Team (FIT) assessed patients for potential early discharge used the 4AT in 80.85% of patients with a diagnosis of delirium coded in 11.12%. In patients not seen by FIT (nFIT) the 4AT usage was 25.18%, with a delirium diagnosis rate of 9.11%. Following the education program FIT 4AT usage was 96.12% with 18.69% diagnosed with delirium. The nFIT cohort completed 4AT in 33.63% of patients with 12.63% diagnosed with delirium (table). Analysis with Statistical Process Control charts showed that after the education program the use of 4AT by inpatient teams improved ($p < 0.05$) (chart 1, 2), but not in the Emergency Department (ED) (chart 3).

Conclusions

FIT assessed more for delirium with 4AT following the educational package. There was a nonsignificant trend for increased diagnosis of delirium in this group. In the nFIT group there were more patients tested for delirium, if the patients only seen by ED were excluded, and a trend for more diagnoses of delirium. The intervention had no impact on completion of 4AT in ED.

Future Developments

- Continue the educational package
- Engage with ED to improve take-up of 4AT
- Engage with consultants to review 4AT in Post-Take Ward Rounds
- Utilise the ward based "Frailty Champions"
- Consider making 4AT a mandatory part of the EPR documentation

References

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- (2) Penfold R (2024) Big Data in Delirium, Platform Presentation. BGS Spring Meeting
- (3) Taylor M, Hunt F, Cawthorne J (2024) Sepsis or Delirium: Where should we invest in training and teaching. EUGMS Poster
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- (5) Hopper A (2021) Geriatric Medicine: Getting it Right First Time. GIRFT

Further Information

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