Discontinuing non-essential interventions at the end of life – a split site, dual discipline quality improvement project

Dr A Brown-Kerr[2], Dr L Frame[2], Dr V Beveridge[1], Dr S Bowers[1], Sr J Carroll[1], Sr F Kerr[1], Dr C Borland[1], Dr L Anderson[1], Dr A McKeown[1], Dr F Finlay[1]

1. Queen Elizabeth University Hospital, Glasgow, Scotland 2. Glasgow Royal Infirmary, Glasgow, Scotland
Contact: Fiona.finlay@ggc.scot.nhs.uk

Background and Aims

Local[1], national[5] and Scottish Government[4] guidance advocates discontinuing burdensome interventions when caring for patients at the end of life. It is known that 1 in 10 patients die during an acute hospital admission.[2] The failure to identify a patient as dying and "poor planning leading to uncoordinated care" have been highlighted as barriers preventing patients dying with dignity[3].

The aim of this project was to reduce, by half, the number of unnecessary medical (blood tests) and nursing (NEWS monitoring) interventions being performed on patients who have been identified by a multi-disciplinary team as being in the last days of life.

Methods

- Nine medical wards (Respiratory, Gastroenterology and General Medicine) were identified across two large Scottish hospital sites. Senior medical and nursing teams on each ward were approached, and agreed to take part in the study. Ward details have been anonymised.
- Baseline, retrospective data were collected for expected deaths on each ward for a three month period (1st December 2016 – 28th February 2017).
- Patients were excluded from analysis if death had occurred within 24 hours of admission, or was assessed as being "unexpected" (no recognition in the case notes of deterioration/poor prognosis and no DNACPR form completed).
- PDSA methodology was utilised, with an initial intervention of a sticker placed in medical notes – see Figure 1
- Further tests of change followed: ward based discussion and education of medical and nursing staff, and the subsequent addition of a TrakCare based alert – to flag up to staff requesting blood tests electronically, that the patient was not for further blood tests. For flow chart see Figure2.
- For the purposes of data analysis, wards were grouped into specialty by hospital, giving 5 ward sets.
- Statistical analysis of the dataset (difference in mean proportion of patients having unnecessary interventions, between the beginning and the end of the study) was performed using Fisher's exact test, which took into account the project's small sample size.

This patient **should not** have further blood tests.
Following review by/discussion with a consultant it has been decided that further blood tests would not change this patient's management.
Discussed with:
Print Name:
Signature:
Date:
This plan of care will continue to be reviewed regularly by the clinical team.
For further guidance on caring for patients in the last days of life, please visit the GAEL Guidance on:
www.palliativecareggc.org.uk/professional/eolc

Figure 1

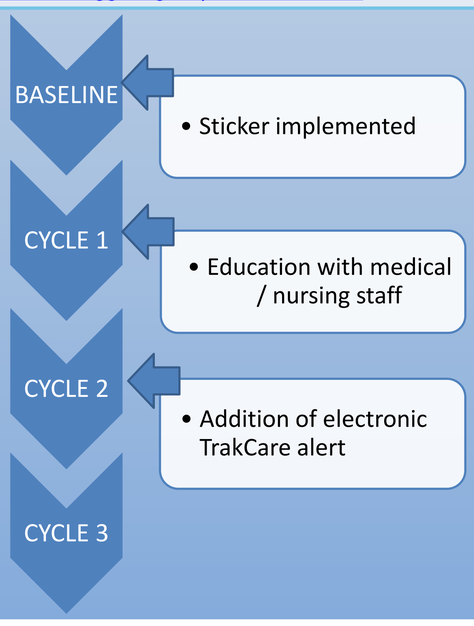
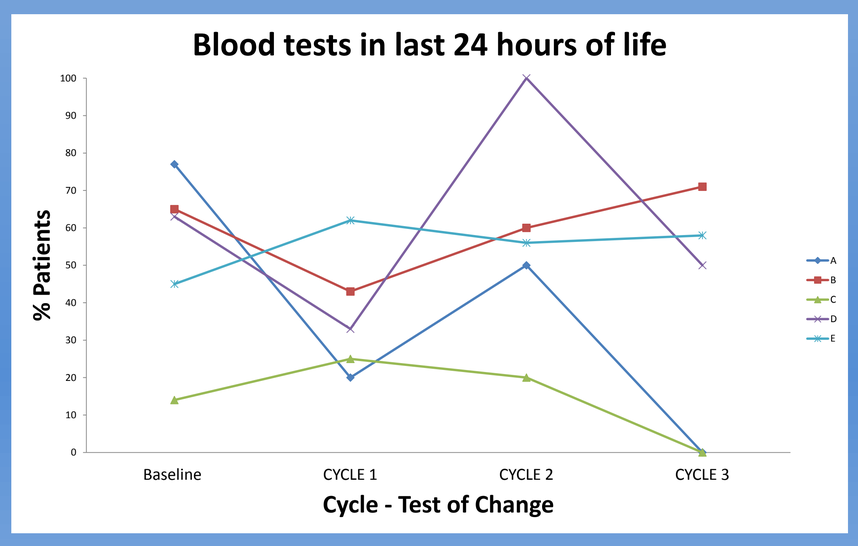


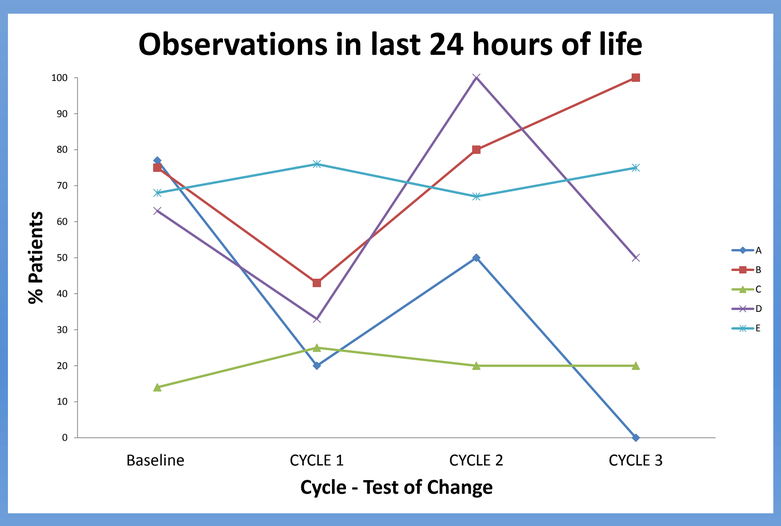
Figure 2

Results

Baseline, retrospective analysis found that 53% of patients (46/86) underwent blood tests and 66% (57/86) underwent routine observation monitoring. There was marked variation in the baseline proportion of patients undergoing interventions at the end of life (14% to 77%). Despite interventions, the only ward showing a statistically significant improvement was A (p = 0.01 for both blood tests and NEWS recording).



Ward	p value Bloods	p value Observations
A	0.01	0.01
B	0.32	0.76
C	1	0.93
D	0.3	0.3
E	0.49	0.86



Conclusions/Discussion

- The baseline, retrospective analysis confirmed a need for a reduction in the number of burdensome investigations performed on patients in the last days of life.
- There was marked variation in the proportion of patients undergoing interventions at the end of life in different clinical areas. In the ward with the lowest proportion of patients undergoing blood tests and NEWS monitoring at the end of life, there is almost daily Palliative Medicine Consultant input, and weekly Palliative Medicine Consultant attendance at the ward's MDT. Ceilings of treatment and the benefits and burdens of specific interventions are routinely discussed at this forum. Nursing and medical staff work closely together on this ward in discussing the holistic management of patients at the end of life.
- Only one ward showed a statistically significant difference in proportion of patients having interventions performed, before versus after the QI project.
- This project was split over nine wards on two hospital sites to maximise the number of patients included for statistical analysis. However, the challenges this presented may have affected the overall success of the project, as not all of the project team could attend regular meetings to discuss the results of each test of change, in each clinical area. A visible, consistent presence on each ward, from a project member embedded within the ward team, may have improved outcomes.
- Further work is ongoing to assess the economic impact of the blood tests performed, and a survey of nursing and medical staff views on performing NEWS monitoring and phlebotomy on dying patients is in progress, to see if this may inform further ways of improving care in this area.

References

1. http://www.staffnet.ggc.scot.nhs.uk/Acute/Rehab%20Assessment/Palliative%20Care/PCRF/Pages/RF_EndofLifeCare.aspx (last accessed 17/09/2017)
2. Clark, David, Armstrong, Matthew, Allan, Ananda, Graham, Fiona, Carnon, Andrew, and Isles, Christopher Imminence of death among a national cohort of hospital inpatients. Palliative Medicine, 2014, 28 (6). 474-479. ISSN 0269-216#3 (doi:10.1177/0269216314526443)
3. http://www.ombudsman.org.uk/about-us/news-centre/press-releases/2015/too-many-people-dying-without-dignity,-ombudsman-service-report-finds (last accessed 17/09/2017)
4. http://www.gov.scot/Resource/0049/00492520.pdf (last accessed 17/09/2017)
5. http://www.palliativecareguidelines.scot.nhs.uk (last accessed 17/09/2017)