Gold standards framework implementation in an acute hospital: end-of-life outcomes

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ABSTRACT

Objectives Hospitals remain the most common place of death in the UK, with 30% of inpatients in their last year of life. National policies emphasise early identification and proactive planning to support patients to die in their preferred place. The Dudley Group National Health Service (NHS) Foundation Trust implemented the Gold Standards Framework (GSF) to identify patients nearing the end of life and guide proactive care. This study evaluated whether GSF coding influenced outcomes, specifically advance care planning (ACP) and place of death.

Methods A retrospective review was conducted of all adult inpatients at a 670-bed UK hospital on 01/09/2023 who died within 12 months. Patients were categorised as GSF-coded or non-coded. Outcomes assessed were evidence of ACP and place of death.

Results Of 216 patients who died, 104 (48%) were GSF-coded on 01/09/2023. Among those coded GSF Green or Amber (n=71), 54% had documented ACP compared with 13% of non-coded patients. 65% of GSF-coded patients died outside the hospital, compared with 45% of uncoded patients. This trend was consistent for both non-cancer (60% vs 40%) and cancer (76% vs 54%) diagnoses.

Conclusion GSF implementation and coding support earlier end-of-life identification, greater ACP engagement and fewer hospital deaths, promoting care aligned with patient preferences and potentially reducing hospital-based costs.

INTRODUCTION

Despite recent decreases, hospitals remain the most common place for people to die.[1] Research has shown that 30% of hospital inpatients are in the last year of life.[2] Furthermore, it is established that 78% of all patients in England who are in the last year of life have at least one hospital admission,[3] with two-thirds having at least one emergency admission in the last 3 months of life.[4]

With an ageing population across the UK, hospitals have an essential role in supporting patients in their last year of life. Identifying and communicating that a patient may be in this stage is the first step in providing support around advance care planning (ACP) and ensuring timely palliative care involvement, as emphasised in the National Health Service (NHS) long-term plan[5] and the current ambitions for palliative and end-of-life care 2021–2026.[6]

Dudley Group NHS Foundation Trust has implemented the Gold Standards Framework (GSF) trust-wide since 2019 to support identifying patients in their last year of life and to develop individualised plans of care. Patients are identified and coded as either GSF Red (final days), Amber (final months to weeks) or Green (prognosis of up to 12 months).

Once identified, clinicians can use local GSF Care Plans to support the development of proactive, individualised plans of care involving patients, which include ACP. Importantly, the GSF is used by all adult hospital clinicians, not just the specialist palliative care team. We previously demonstrated that generalists can appropriately identify and code patients in the last year of life.[7]

Given the trust-wide implementation of GSF, this report aimed to evaluate whether there are differences in end-of-life outcomes between patients who were GSF-coded and those who were not.

There are no agreed measures for assessing the quality of end-of-life outcomes,[8] but there are several key performance indicators which are used as proxy markers for end-of-life quality. Engagement in ACP is measured as one marker of quality, as ACP engagement has been shown to increase rates of care

outside of the hospital, alongside increasing the rates of care complying with patients' wishes and improving care satisfaction.[9] ACP is recognised as a process where patients can be supported to express preferences for their future care and treatments.[10] Its core purpose is to promote person-centred care, with participation being entirely voluntary.

AIM

To retrospectively compare differences in end-of-life quality measures, specifically evidence of ACP and place of death, between patients who were GSF-coded and those who were not.

METHODS

This retrospective review was performed at a 670-bed hospital in the UK, with a local population of 323 000.

With the assistance of the local analytics department, a search was completed of all adult inpatients on 01/09/2023 who died in the following 12 months.

Each patient's electronic patient record was reviewed to identify age, gender, cancer or non-cancer diagnosis, coded GSF status on 1 September 2023, date of death, place of death (hospital or not hospital), documented evidence of ACP in hospital records, documented evidence of ACP in community records and presence of a Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) order.

Only patients with a documented GSF status on or before 01/09/2023 were considered GSF-coded for the purpose of this analysis.

RESULTS

Of the 647 adult inpatients on 01/09/2023, 216 patients died within 12 months (33%). 111 patients were male (51%), and 105 patients were female (49%). The average age at the time of death was 77.6 years.

Comparing the place of death, the incidence of deaths in hospital was 117 (54%), and the incidence of deaths outside hospital was 99 (46%). Of those who died, 62 patients (29%) died from cancer-related causes, and 154 patients (71%) died from non-cancer conditions.

Of the 216 patients who died, 104 (48%) had a documented GSF code as of 01/09/2023 (representing 16% of all inpatients on that date). 77 (74%) of patients with a GSF code had a non-cancer diagnosis, while 27 (26%) had a cancer diagnosis. There were 31 patients coded GSF Green, 40 coded GSF Amber and 33 coded GSF Red. For analysis, the GSF Red cohort was excluded, as the emphasis for these patients is around the development of an individualised plan of care for the dying person.

Among all 216 deceased patients, 165 patients who died had a DNACPR in place on 01/09/2023 (76%). Comparing DNACPR with GSF status, 62% of patients were both GSF identified and had a DNACPR in place, compared with 38% of patients who were not GSF identified but did have a DNACPR in place.

Evidence of ACP

Among the 71 patients coded GSF Amber or Green, 38 (54%) had documented ACP during their hospital admission. In contrast, only 14 out of 112 patients (13%) without a GSF code had documented ACP.

Impact on the place of death

Of the 71 patients coded as GSF Amber or Green on 1 September 2023 who died in the following 12 months, 25 (35%) died in hospital, and 46 (65%) died outside hospital. For the 112 uncoded patients on the same date, 62 (55%) died in hospital, and 45% died outside hospital.

Considering the place of death by diagnosis, for patients with a non-cancer diagnosis coded GSF Amber or Green, 60% died outside of hospital compared with 40% of non-cancer patients without a GSF code. Similarly, for patients with a cancer diagnosis coded GSF Amber or Green, 76% died outside of the hospital, compared with 54% of cancer patients without a GSF code.

CONCLUSION

This retrospective review demonstrates how GSF implementation in an acute hospital setting can support the development of proactive plans of care, which can be evidenced by the increased engagement in ACP and reduced incidence of deaths in hospital. The findings also highlight the impact of the GSF in supporting end-of-life care planning for non-cancer populations, who have historically been under-represented in palliative care provision.

The GSF framework empowers clinicians to both identify and support patients in the last year of life. Through improved opportunities for and engagement in ACP, clinical teams are better positioned to understand a patient's wishes and preferences to develop an individualised plan of care, which may reflect the greater incidence of deaths outside hospital for patients who have been GSF coded. This has been demonstrated for patients with both cancer and non-cancer diagnoses.

As dying outside of hospital is the most commonly expressed preference in England,[11] improved engagement in ACP will improve the ability to recognise and record these preferences and inform decisions to support in planning the preferred place of care and death. GSF coding may act as a catalyst for broader end-of-life planning, reflected in higher rates of both DNACPR documentation and ACP engagement.

Expenditure in hospital settings accounts for 81% of the total healthcare costs for patients in the last year of life.[12] GSF implementation may therefore reduce this cost, reflected by lower rates of deaths in hospital for those with a GSF code.

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