

BMJ Open Quality Driving communication forward: improving communication for palliative care patients around driving and opioids – a quality improvement report

Seline Ismail-Callaghan,¹ Megan Howarth,¹ Rebecca Allan,¹ Nicola Davey,² Stephanie Amanda Meddick-Dyson ³

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ABSTRACT

Introduction The number of people requiring palliative care is increasing with an ageing comorbid population. Pain is a prevalent symptom for palliative care patients and is often managed with opioids. Opioids reduce reaction time and can cause drowsiness and visual disturbance. Evidence recommends that driving should be avoided until a stable dose of opioids has been reached. It is vital for patient and public safety that these facts are communicated to patients who are prescribed opioids, as well as the legal consequences if guidance is not followed. These discussions facilitate joint decisions, optimising patient freedom and quality of life. Surprisingly though these important discussions around driving and opioids do not always occur, and so this project sought to develop a systematic approach to integrating them into practice.

Design Retrospective case note analysis and prospective interventional quality improvement study.

Setting A 16 bedded specialist palliative care inpatient unit.

Population Hospice inpatients with an Eastern Council Oncology Group performance score of 0–3 who had been prescribed opioids.

Intervention Three plan–do–study–act cycles were performed. First, the issue was discussed in the daily multidisciplinary team meeting to raise awareness, second a prompt was added to a pre-existing clerking proforma. Finally, a reminder poster was placed in the ward office to promote discussion prior to discharge.

Outcome measures Primary measures were the proportion of patients with the presence of documented driving status, and the presence of a documented discussion surrounding driving and opioids.

Results Baseline data found that 11.5% of patients had a documented driving status and 11.5% had a documented discussion surrounding driving and opioids. Over the course of the study, the proportion improved to 65.2% and 60.9%, respectively.

Conclusion Use of quality improvement change methods have resulted in the successful integration of new interventions to increase discussions around driving when prescribed opioids. A previously overlooked issue in this facility, thus improving clinical and patient information sharing, and patient empowerment to take charge of their own health.

WHAT IS ALREADY KNOWN ON THIS TOPIC

- ⇒ Opioids can impact driving capabilities of those prescribed them.
- ⇒ Despite a high prevalence of opioid prescription in palliative care, conversations to discuss this impact are lacking.

WHAT THIS STUDY ADDS

- ⇒ This quality improvement initiative has identified interventions that are effective at increasing these conversations.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

- ⇒ Lessons learnt can be transferred to other hospices, and to the wider practice of opioid prescribing.

PROBLEM

Pain and breathlessness are two of the most frequent symptoms experienced by patients requiring palliative care.¹ Opioids are frequently used to alleviate intractable pain and manage breathlessness.^{1,2} Clinicians have an ethical duty to attempt to control these symptoms to maximise patients' quality of life, and maintain dignity by relieving suffering.³ However, opioids can have negative impacts on psychomotor skills and mental performance, affecting driving ability.⁴ Driving is regarded as a key activity of daily living, playing a crucial role in maintaining independence in the community.⁴ It is often relied on for access to social activities and employment. Individuals taking opioids may be unaware and surprised that the same 'drug driving' penalties can apply to individuals taking medications adversely affecting their driving performance, whether these are prescribed or not.⁵ It is therefore clear that insufficient counselling of patients regarding driving guidance while taking opioids is a patient and public safety hazard. Further, clinicians hold a duty of care to ensure patients receive



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¹University Hospitals Dorset NHS Foundation Trust, Poole, UK

²Quality Improvement Coaching, Quality Improvement Clinic Ltd, Shedfield, UK

³Leeds Teaching Hospitals NHS Trust, Leeds, UK

Correspondence to

Dr Seline Ismail-Callaghan;
seline_ruby909@msn.com

thorough counselling on this issue, whether they are initiating the prescription or not.⁶

The project was conducted in a 16-bed hospice, providing specialist palliative inpatient care. It is run by a diverse and dedicated multidisciplinary team (MDT) of doctors, inpatient nurses, therapists, a chaplain and individuals who can offer financial and counselling support. The goal of the unit is to provide patient-centred holistic care, tending to physical, psychological, social and spiritual needs. It is a short stay unit and patients are admitted due to complex or difficult to manage symptoms and often discharged with ongoing support from the community palliative care team. New patients are usually admitted every 1–2 days.

It was recognised by staff that there was a significant lack of documented communication regarding driving guidance for patients prescribed opioids. There was a pre-existing hospice driving guidance leaflet for this cohort, however, following informal discussion, it was clear that much of the team were unaware of its existence. A previous study highlighted a similar issue, suggesting this is a far-reaching problem.⁷ Although the team informally reported that conversations regarding driving guidance often occurred, they were rarely documented and therefore could not be evidenced. This topic was not part of the junior doctor induction to the unit, and there were no written prompts or reminders to have such a discussion. It appeared to have been an overlooked issue, and a widely accepted habit had been formed of not having this discussion, or at least not documenting it. Baseline data supported this hypothesis with 11.5% of cases having a documented driving status and 11.5% a documented driving guidance discussion.

Given the serious safety, legal and quality of life implications of not having this conversation, it was clear a change was required. The aim of this project was to create sustainable solutions to increase the frequency of documented driving status and discussions on driving guidance while taking opioids between August 2021 and January 2022 from 11.5% to 50%, as it was felt this was a realistic target that could be achieved within the time frame.

BACKGROUND

Driving is a multifaceted task, demanding visual and auditory information processing, manual dexterity, eye-hand coordination and mental alertness.⁸ It is, therefore, unsurprising that opioids, known to reduce psychomotor performance and cognitive functioning, may affect driving ability.^{4,8} The act of driving is implicated in forming a sense of identity and independence, important for social engagement and employment. It is often attributed to an increased sense of well-being.⁹

Several classes of medications, including opioids, antihistamines and antidepressants, are linked to an increased risk of involvement in road traffic collisions.¹⁰ It has been shown that the presence of opioids in fatal road traffic collisions increased from 1.0% in 2007 to

7.2% in 2015.¹⁰ Further, a statistically significant association between opioid use and road traffic collisions in individuals over 50 has been found.¹¹ 23% of palliative care patients continue to drive, and 65% of these individuals take opioid analgesics.¹²

Importantly, it has also been noted that once a stable dose of opioids has been reached, driving ability is no longer affected.⁴ This highlights the necessity to counsel patients on driving guidance while taking opioid medications, to ensure they are aware of when it is safe to drive while taking opioids.

Further, the bystander effect is frequently implicated in healthcare.¹⁰ It refers to the concept whereby when several healthcare professionals are involved in management of a patient, one single professional is less likely to take responsibility, under the assumption another individual has.¹³ At many palliative care inpatient units, patients are already taking opioids at the time of admission, this was frequently the case at this unit. It could be assumed that patients had already been appropriately counselled prior to admission and so the bystander effect may partially account for the low incidence of documented driving status and driving guidance discussions in this case.

Improvements in professional practice can yield better patient outcomes. Strategies to do so include quality improvement projects, feedback and audits. Several studies have sought to determine what intervention characteristics result in it being successful or not.¹⁴ Strategies including normative restructuring of practice, modifying peer group norms and expectations, and relational restructuring, particularly when combined, are most likely to result in behavioural change and subsequently improved patient outcomes.¹⁵ In view of this, as is further discussed below, two of our interventions aimed to reorganise normal practice. Additionally, interventions are more likely to be effective when the baseline performance is low.¹⁶

A 2019 quality improvement project focusing on improving the quality of communication with palliative care patients on driving guidance while taking opioids implemented several successful interventions.⁷ These included discussions with the wider MDT via presentations at clinical governance meetings and making driving safety leaflets available.⁷ These interventions resulted in discussions regarding driving guidance occurring in only 30% of cases. Given this was the only study identified targeting a similar goal, there was potential scope for improvement, and a local need identified, this project aimed to further improve discussion frequency. The findings of this project offer further, and more effective interventions to the ones described previously.

MEASUREMENT

Retrospective analysis of patient's paper notes and their electronic patient record was conducted at increments over a 5-month period, 1 September 2021 to 28 February 2022 to capture quality improvement initiatives

implemented between 1 August 2021 and 31 January 2022. Included patients had an Eastern Council Oncology Group (ECOG) performance score of 3 or lower and were prescribed and taking opioids. Patients were excluded if they had an ECOG performance score of 4 or were admitted with a with acute deterioration whose condition did not improve.

The aim of the project was to improve the frequency of occurrence of discussion of driving status, and discussion around driving guidance. Measuring the documentation of the discussions was felt to be the most accurate way to track this frequency. Although it was recognised that not all discussions would be documented, for the purpose of measurement, it was assumed that there would be a proportional increase of documented discussions to conducted discussions. Thus, allowing measurement through the improvement initiative. All data were collected retrospectively for the previous month by the project lead.

For each set of patient notes, a ‘yes’ or ‘no’ were recorded to indicate the presence or lack of a documented discussion of driving status, and again for a documented discussion around driving guidance. The data were pooled to calculate a percentage of cases with a ‘yes’ for each measurement individually, giving a percentage of cases with a documented discussion of driving status, and a percentage with a documented discussion around driving guidance. Following each intervention within the three plan–do–study–act (PDSA) cycles employed, these data were recollected, and new percentages calculated. All data were collected by the project lead to ensure consistency.

To further assess the effect of changes, the number of days between documentation of a discussion of driving status, and discussion around driving guidance were recorded.

These measures were chosen following MDT discussions that found them straightforward and easily repeatable within the unit, and within other settings. The quantitative measurements enabled assessment of the effect of interventions implemented at each PDSA cycle to guide future decisions.

Throughout implementation of the change ideas, feasibility was examined observationally and via informal feedback from those involved in the implementation.

DESIGN

Patient and public involvement

Patients and public were not involved in the design of this quality improvement report. When discussing intervention concepts as a quality improvement team, the idea of conducting a survey with patients and their loved ones was discussed to gauge their perspective on the scale of the issue at hand. However, on further discussion, it was decided to not involve patient or public at this early stage. Interventions were, therefore, focused on healthcare professional actions and behaviour.

To understand current barriers to conducting and documenting discussions around opioids and driving, several factors were mapped using a fishbone diagram (figure 1). Insight was gained from key members of the team including palliative care doctors of varying experience, pharmacists, nurses and the discharge coordinator.

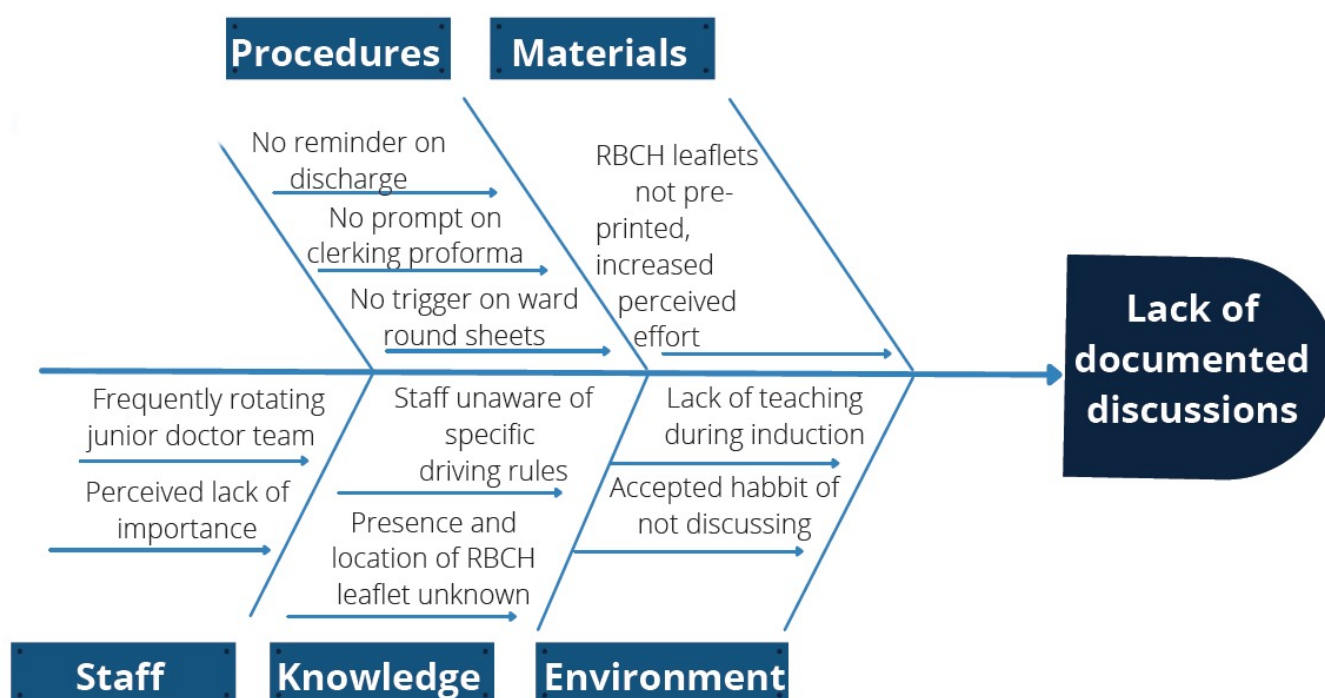


Figure 1 Fishbone mapping existing barriers to conducting and documented driving guidance discussions RBCH, Royal Bournemouth And Christchurch Hospitals

This was used to inform decisions to develop targeted interventions. It was felt that procedural factors including an absence of a reminder to discuss this on discharge or admission, and team engagement, were particularly important factors and these were subsequently targeted in the interventions. These factors came up frequently during MDT discussion regarding the project and had been identified as an area of weakness. A standardised method for patient counselling and the subsequent documentation was felt to be required and time was taken to design interventions, predicting any barriers and aiming to address them.

STRATEGY

Following the diagnostic processes, PDSA cycles were used for each intervention implemented to test its effectiveness and examine feasibility. Adjustments were made moving through the cycles after reflection on the learning from the previous one.

Planning the interventions

The first intervention was to raise awareness of the goals of the quality improvement project, and of the baseline data collected suggesting a low frequency of discussions surrounding driving guidance. This was felt to be important when the outcome of this project would depend largely on team engagement. The daily morning MDT meeting was used as a platform as similar interventions within the inpatient unit had been implemented this way successfully. This was achieved through informally discussing the project at a morning MDT meeting conducted by the project leader.

The second intervention integrated driving status into an existing admission proforma. This intended to facilitate a standardised method of documenting driving status, and hopefully prompt further discussion on driving guidance. It was a concern that completion of components of the clerking proforma were not always completed due to time pressures. A short prompt was chosen to address this, avoid over complicating the proforma and reduce perceived work effort. To address the norm of not having discussions with patients, having the prompt on the clerking programme created individual accountability for clinicians to discuss driving with patients they were admitting.

The third intervention promoted discussion around driving as part of discussions around patient discharge by use of a poster. Team reflections had led to the realisation that discussing driving guidance on admission may not be appropriate. Given the delicate nature of many patients' conditions, an individual may be admitted well enough to drive, but discharged at a time when they are no longer able to. In these cases, discussions taking place around driving on admission would not be of benefit and may also cause distress. For patients who are able to drive on discharge, later discussions would mean that they are less easily forgotten during their inpatient stay. The poster was placed in the ward office to serve as a prompt and reminder also highlighting the presence and location of the existing driving guidance leaflet. As time pressures are often implicated in suboptimal medical practice, leaflets were preprinted to reduce time consumed by printing leaflets.¹⁷

Table 1 Details of changes tested

PDSA	Plan	Do	Study	Act
PDSA 1 September– October 2021	Awareness raised of the issue within the multidisciplinary team (MDT) with project leader conducting an informal discussion at a morning MDT meeting.	'Change' trialled in a single MDT meeting, followed by a 1-month period of data collection, covering 26 data points and 26 patients.	This change was not successful.	Change abandoned A more formal way to engage staff was sought as simply raising awareness was not effective. No further attempts to raise awareness were made.
PDSA 2 October– January 2022	Driving status prompt was incorporated into the existing clerking proforma. This was achieved by the project leader changing the proforma electronically following discussion with the senior doctors in the unit.	'Change' was trialled for a 3-month period, covering 76 patients and 76 data points.	Change was found to be effective, but it was noted the prompt was not always used.	Change adopted. On reflection on the impact of driving discussion on admission, the QI team felt discussion regarding driving guidance close to discharge more appropriate.
PDSA 3 January– February 2022	Discussions held regarding the most effective way to encourage clinicians to have discussion as discharge approaches. Poster was used to remind clinicians and placed in ward office. Poster highlighted existing guidance leaflet around driving and opioids. Copies of leaflet printed and made available.	'Change' was trialled for a 1-month period, covering 26 patients and 26 data points.	Change found to be effective. However, use of the leaflets was not sustainable once the preprinted versions had been used. There were concerns that one poster among many may be less accessible and limit effectiveness.	Change adopted. Future PDSA cycle planned to increase accessibility of staff knowledge by including information on this issue on induction to the unit.

PDSA, plan–do–study–act; QI, quality improvement.

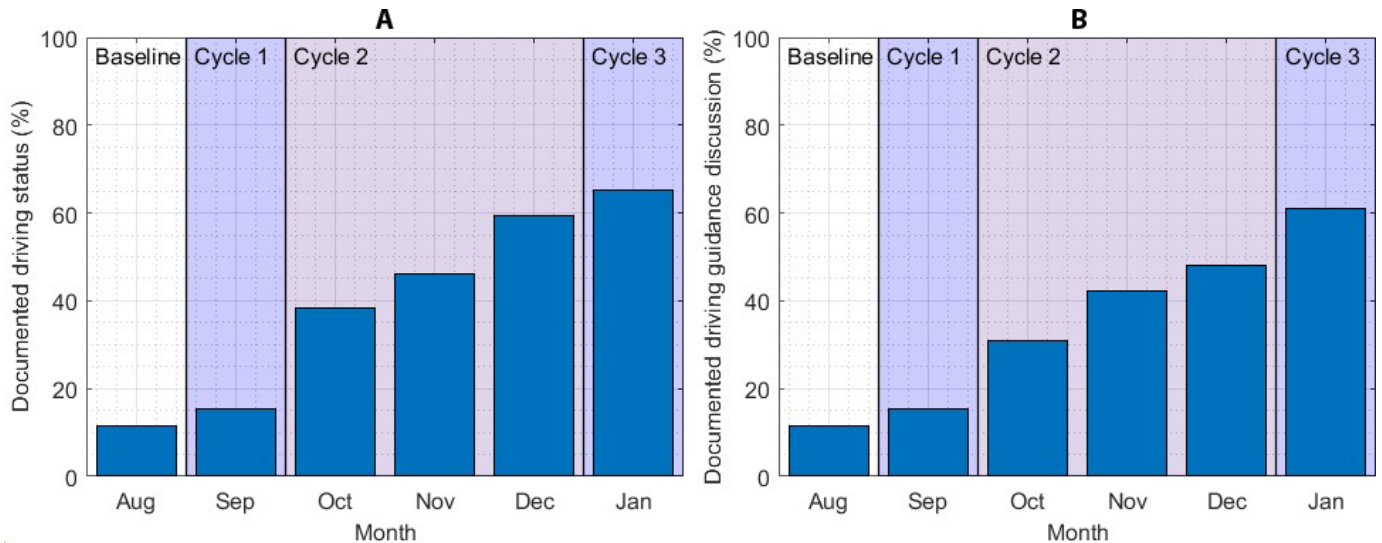


Figure 2 Documented (A) driving status and (B) driving guidance discussion.

Testing the interventions

Studying the change process

The QI team found that all the changes listed in table 1 were feasible within the inpatient unit. The use of the leaflets, however, appeared to lack sustainability as the perceived work of printing the leaflet once the preprovided stock had been used prevented further use.

RESULTS

Baseline data and data for PDSA cycles one and three were collected over 1 month. The data for PDSA two were collected over 3 months. A total of 290 data points were collected and there were no missing data. The number of data points collected for each month was 26 on average and individual number of data points per intervention are shown in table 1.

After the first intervention 15.4% of patients had both documented driving status and discussion on driving guidance while taking opioid medications, compared with the baseline of 11.5%. Following the second intervention, the proportion of patients had increased to 59.3% and 48.1% for documented driving status and driving guidance discussion, respectively. The third intervention gave an increase to 65.2% and 60.9% for documented driving

status and driving guidance discussion, respectively. These results are summarised in figure 2.

Figure 3 demonstrates run charts for the number days between documented driving status and driving guidance discussion. The median for the baseline data was 4 days between. Following the implementation of the second and third intervention, the days between reduced and stayed consistently below the median baseline.

LESSONS AND LIMITATIONS

The aim of the project was to increase the proportion of documented driving status, and discussion of driving guidance for palliative care patients prescribed and taking opioids. A core goal was to create a sustained change. Therefore, the interventions and future interventions had and have the aim of improving team engagement and raising awareness of the issue to motivate individuals to drive change forward.

There was no clear pattern to suggest why some patients received documented counselling and others did not. Although, it was noted for the infrequent cases that opioids had been started in the unit, rather than the community, counselling was performed, and this was documented. This highlighted the prevalence of the bystander

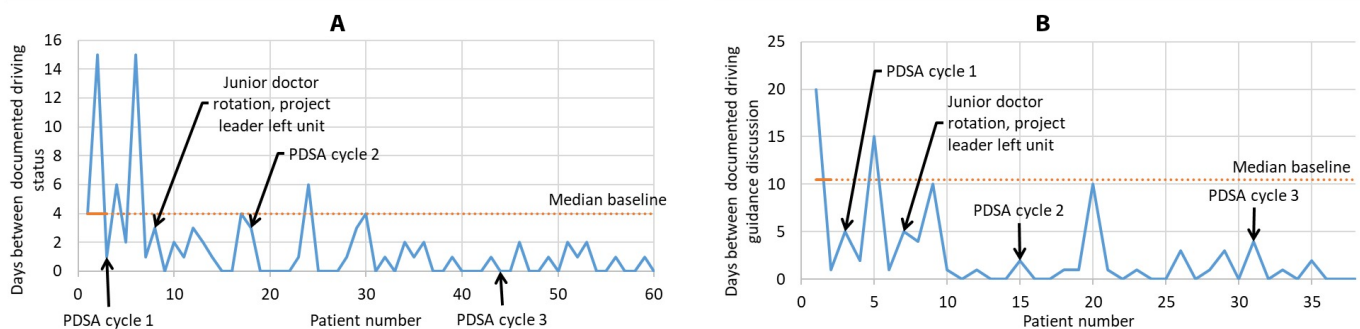


Figure 3 Documented days between (A) driving status and (B) driving guidance discussion. PDSA, plan-do-study-act.

effect, indicating that prompts would likely be required to improve the baseline rate for patients admitted while taking opioids. This yielded crucial insight which helped to shape the chosen interventions.

Team engagement was going to be crucial for the success or failure of this task. Therefore, several parties from the MDT were involved and interventions were discussed with the team prior to implementation to maximise buy-in. Despite this, it was clear that the first intervention, which had the aim of increasing team engagement, yielded very little improvement. This enabled us to assess what methods of enhancing team engagement were likely to be most effective. Data collected suggested that informal methods of team engagement, such as highlighting the issue at the morning MDT meeting are not effective, and it was pondered if a more formal method to target team engagement may be more effective. For example, circulating an email, or discussing the project at a local team meeting.

As the project progressed, the familiar barrier of changing old routines was apparent. This highlighted that even a beneficial change can face resistance, and it can take time to overcome established routine. Although the frequently changing junior doctor team carries some drawbacks, it may simultaneously be beneficial in this context. For example, if the successful interventions can be implemented and cemented as part of a routine, it should be easier for newly joined members of the team to adopt them as they take on an existing norm.

The PDSA cycles enabled review of the interventions as the project progressed, identifying positive and negative aspects, and planning future PDSA cycles according to the findings. Making small changes enabled analysis of what was and was not having a positive effect.

Notable limitations include the small size of the unit, and the fact that this is only one unit out of many hundreds of units across the country. Given the proportion of people receiving opioids for palliative care who continue to drive and the potential risks, counselling regarding driving should be routine. Determining the national picture would identify whether the problem prevails nationally or in local pockets. Further, due to human factors including busy working patterns and time restraints, the time period for the second intervention was longer than the baseline data, first and third intervention. While this intervention had a longer trial period and the team had a greater opportunity to adapt to it, the change was sustained over a significant period of time with the rate remaining below the baseline median.

There were some confounding factors that have been recognised such as the junior doctor team rotating during the period in which the data was collected. This is marked on the run chart. As can be seen for both documented driving status and documented driving guidance discussion, there was a small rise in the number of days between documentation shortly following the time the junior doctor team rotated, which also coincided with the time the project lead left the unit. Further, between October

and December, the project lead worked on the ward in a capacity where they reviewed and admitted patients. As staff members became more aware of the project, the Hawthorne effect may also have influenced results. In addition, formal data were not collected regarding the use of the driving safety leaflets, and on reflection, it would have been beneficial for this to be its own intervention, with independent data collected for this and patient feedback sought.

CONCLUSION

This project successfully exceeded the aim of increasing the proportion of patients with documented driving status and discussion on guidance for driving when prescribed opioids to 50% from a baseline of 11.5%. The final proportions were in fact 65.2% and 60.9% for documented driving status and discussion, respectively.

To ensure continued and further improvement, a further PDSA cycle has been planned to include this topic as part of the staff induction to the unit.

Dissemination of these findings with other palliative care inpatient units is crucial to allow sharing of interventions, and to encourage them to explore their own situation. It will be important to liaise with community palliative care and oncology colleagues to assess if findings from this project can be used in other settings.

To share these findings, we have discussed methods such as presenting and sharing key messages nationally at suitable conferences. For example, the project was presented at the Bristol Patient Safety Conference in May 2022 and will also be presented at the Palliative Care Congress in March 2023. On a local level, the project was presented at the palliative care risk meeting in April 2022. Further, the Macmillan Hospice will first liaise with the oncology unit at Poole Hospital to assess which findings can be used, and subsequently liaise with other palliative care teams in the local county.

Twitter Nicola Davey @Clinic_QI

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Contributors SI-C, MH and RA conceived the quality improvement project and interventions. SI-C collected the data. SI-C, ND and SAM-D performed data interpretation and analysis. SI-C drafted the manuscript. MH, RA, ND and SAM-D critically reviewed and edited the manuscript. SI-C is the guarantor. All authors read and approved the final manuscript.

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ORCID iD

Stephanie Amanda Meddick-Dyson <http://orcid.org/0000-0001-7032-6426>

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