

# Improving the weekend spinal ward round at a major trauma centre

## Abstract

**Background/Aims** Documentation is key for communicating between members of the multidisciplinary team, allowing for better care, but documentation for spinal patients in the authors' centre was poor.

**Methods** Every ward round encounter was analysed for six weekends. Data were analysed and presented to the department. A weekend ward round proforma was designed to help improve ward-round documentation. Ward round entries were then re-audited over four weekends to assess the usefulness of the new proforma.

**Results** A total of 69 patient encounters were analysed in cycle 1, 58 in cycle 2 and 92 in cycle 3. In cycle 1, 80% of encounters had inadequate documentation. Following introduction of the ward round proforma there was a significant improvement in documentation in six out of fields, which was maintained in four out of seven fields 2 years later.

**Conclusions** The authors believe that this improvement may avoid adverse effects on patient care, streamline doctors' time and reduce medicolegal consequences.

**Key words:** Communication; Documentation; Proforma; Spinal; Ward round

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Hammad Parwaiz<sup>1</sup>

Christopher AJ Trew<sup>1</sup>

Robert Whitham<sup>2</sup>

Boris Aliaga-Crespo<sup>1</sup>

Aveek Mitra<sup>2</sup>

Ian Harding<sup>2</sup>

Author details can be found at the end of this article

**Correspondence to:**

Christopher AJ Trew;

christopher.trew@nhs.net

## Background

Medical ward rounds are a complex process, described as time during which the clinical care of patients at a hospital is reviewed (Herring et al, 2011). According to guidance from the Royal College of Surgeons of England (2014), surgeons must maintain accurate, comprehensive, legible and contemporaneous records of all their interactions with patients.

This work was carried out at the major trauma centre servicing the Severn region. Spinal injuries are associated with serious neurological damage and can result in paraplegia, tetraplegia or death. Currently there are no 'cures' for spinal cord injury and in the UK 40000 people are living with long-term disabilities as a result of such injuries (National Institute for Health and Care Excellence, 2016).

Despite being a key component of daily hospital activity, these ward rounds were often inadequately prioritised within the spinal unit because of the high volume of patients and short staffed rotas, leading to long ward rounds undertaken alongside busy theatre commitments.

The junior doctors working at this major trauma centre cover spinal as well as trauma and orthopaedic services at the weekends, resulting in increased time pressure and stress. It was noted that the quality and completeness of ward round entries for spinal patients were inadequate, with potential implications for patient safety and quality of care.

The aim was to improve the quality and completeness of ward round documentation during the weekend by introducing an assessment proforma for each patient. This decision was based on studies showing that checklists can help improve communication between different members of the multidisciplinary team and improve patient care (Haynes et al, 2009; Zwarenstein et al, 2009).

## Method

A baseline measurement (cycle 1) of documentation was carried out assessing each ward round encounter for every spinal patient during six consecutive weekends. The exclusion criteria were those patients under the care of the neurosurgical team and those in the intensive care unit.

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Affix Patient Sticker

***Southmead Hospital Spinal Service***

Diagnosis/Procedure and Date:	<b>Weekend Plan</b>
Consultant:	
Current Problems/Concerns:	

**Saturday**

Pain	/10	Bowels:	Wound:	Drain	mls/24 hours
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<p><b>Obs: Stable Y N</b></p> <p><b>Neurology:</b>  <b>Power:</b>           R    L          Hip Flx          Knee Ext          Ankle Dorsiflx          Extensor HL  <b>Sensation</b>       R    L          L2          L3          L4          L5          S1</p>	
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**Sunday**

Pain	/10	Bowels:	Wound:	Drain	mls/24 hours
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<p><b>Obs: Stable Y N</b></p> <p><b>Neurology:</b>  <b>Power:</b>           R    L          Hip Flx          Knee Ext          Ankle Dorsiflx          Extensor HL  <b>Sensation</b>       R    L          L2          L3          L4          L5          S1</p>	
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Thromboprophylaxis:	Xray:	Nurse aware of plan	TTA
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**Figure 1.** The proforma designed to improve documentation during the weekend ward round.

Following an internal discussion in the spinal team, including the juniors who would be involved in documenting the information, the outcome was to develop a tool that would allow key elements to be reviewed in a timely and safe manner.

A weekend ward round assessment proforma was designed by the spinal consultants, spinal juniors and the trust clinical safety and governance team (Figure 1).

The elements that were integrated into the weekend proforma were decided by the department based on best practice. These are summarised in Table 1.

The proforma was then introduced, with a new audit cycle over the next four consecutive weekends. A further cycle was gathered 2 years later over a further four weekends.

Two-tailed Fisher’s exact tests were used to calculate the significance of change in each item of documentation. A P value of <0.05 was considered statistically significant.

**Table 1. Key elements to be reviewed during the ward round that were included in the proforma**

Information to be documented
Diagnosis
Operation
Neurological examination
Weekend plan
Image study to be reviewed
Mobility
Pain
Bowel function
Observations
Weekend plan
Thromboprophylaxis
Wound check
Drain care
Nurse aware of plan

**Table 2. Change in levels of documentation of seven different components of ward round documentation across all three cycles**

Parameter	Cycle 1		Cycle 2		Cycle 3	
	Yes	No	Yes	No	Yes	No
Observations	52	17	55 ( <i>P</i> =0.0029)*	3	86 ( <i>P</i> =0.0014)*	6
Pain	43	26	44 ( <i>P</i> =0.18)	15	91 ( <i>P</i> <0.000001)*	1
Bowels	39	30	46 ( <i>P</i> =0.008)*	12	46 ( <i>P</i> =0.4)	46
Wound	49	20	52 ( <i>P</i> =0.014)*	6	68 ( <i>P</i> =0.7)	24
Drain	35	35	46 ( <i>P</i> =0.0008)*	12	92 ( <i>P</i> <0.00001)*	0
Neurology	46	23	53 ( <i>P</i> =0.001)*	5	64 ( <i>P</i> =0.7)	28
Plan	41	28	57 ( <i>P</i> =0.0001)*	1	91 ( <i>P</i> <0.00001)*	1

\*significant change from cycle 1 (*P*<0.05)

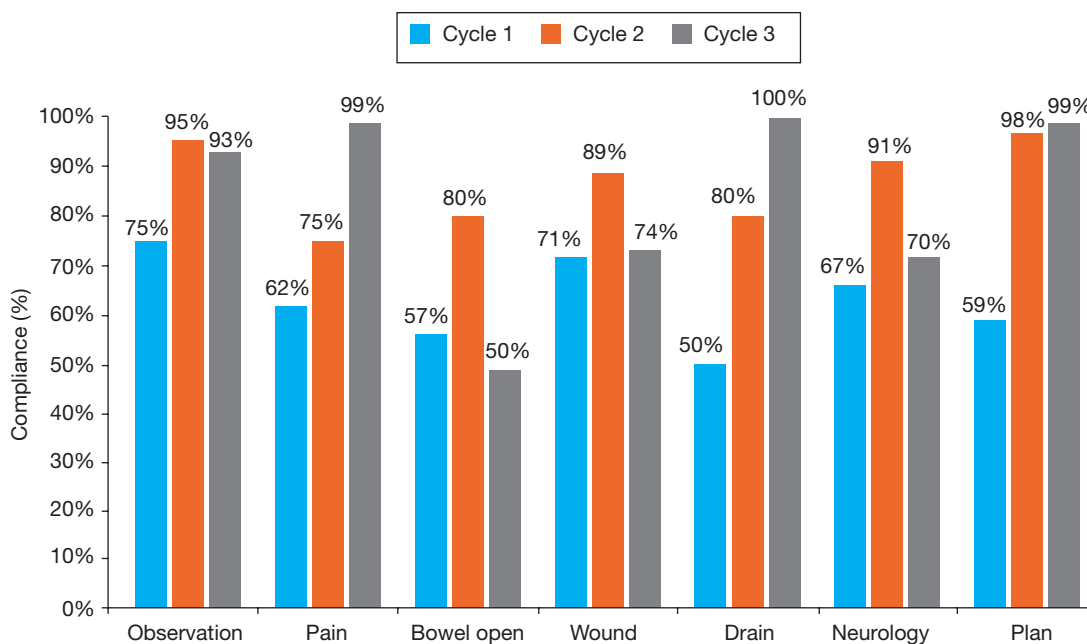
## Results

A total of 69 patient encounters were analysed over the first six weekends, 58 encounters were analysed over the next four weekends after the proforma was introduced and 92 patient encounters were analysed over 4 weekends 2 years later. Results of the analysis are shown in **Table 2** and **Figure 2**.

There was a statistically significant improvement in documentation in six out of the seven items analysed after the first cycle and significant change persisted in four out of the seven domains 2 years after introduction.

## Discussion

Introduction of the proforma showed immediate, clear improvement in documentation. In six out of seven domains, there was a significant increase in the presence of documentation about important aspects of patient care. These changes were sustained in four domains



**Figure 2.** Change in levels of documentation of seven different components of ward round documentation before and after the introduction of the ward round proforma.

at 2 years, showing evidence of good sustainability. This sustainment was in important aspects: observations, pain, commenting on drains, and a clear weekend plan. These are key elements to ensuring patient safety and continuity of care.

Room for improvement remains in other areas. As a complex spinal unit, patients require clear documentation of serial examinations of their neurological function. Using the proforma neurological examination rose above 90% of patients having this clearly documented, but this dropped to pre-intervention levels by 2 years. A similar pattern was seen for bowel function and for wound review. These are critical areas for medicolegal reasons and patient comfort. Further work needs to be undertaken to improve documentation in these areas.

Overall, the introduction of a spinal weekend assessment proforma has shown significant, sustained improvement in the quality of documentation in multiple domains. The proforma has not provided enough reminder to sustainably improve elements of the ward round that require high clinician input, such as the neurological examination or wound review, but it has greatly improved areas that are often forgotten but are critical to care. Most importantly, it has improved communication of plans, with 99% of patients having clear documentation.

## Conclusions

Clear and full documentation in the clinical notes is part of good surgical practice and this proforma helps to achieve it in multiple crucial domains. The authors recommend that other surgical units and departments consider the introduction of such a proforma.

### Author details

<sup>1</sup>Department of Trauma and Orthopaedics, Southmead Hospital, Bristol, UK

<sup>2</sup>Department of Trauma and Orthopaedics, Royal United Hospitals Bath NHS Foundation Trust, Bath, UK

### Conflicts of interest

The authors declare that there are no conflicts of interest.

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## Key points

- Ward round documentation is important for communication, patient care and protecting the trust, the team and the patient in medicolegal matters.
- The Royal College of Surgeons lays out clear guidance for the correct documentation of notes and ward rounds.
- The introduction of a structured and standardised proforma for use on spinal ward rounds at the weekend improved the quality of documentation.
- Improved documentation reduced the duplication of work, improved the discharge planning of patients, and will hopefully improve patient care and save the trust in medicolegal expenses.

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