Risk Management of Pre-operative Processes for Patient Safety

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Background

The High 5s Project, established by WHO in 2007, is an international collaboration carried out in seven countries- Australia, Germany, France, the Netherlands, Singapore, Trinidad & Tobago and the United States of America- and coordinated by the WHO Collaborating Centre on Patient Safety. The Joint Commission. Its mission is to facilitate implementation and evaluation of standardized patient safety solutions within a global learning community, to achieve measurable, significant and sustainable reductions in high risk patient safety problems.

Introduction

KKH had implemented High 5s Correct Site Surgery (CSS) protocol in the major operating theatre (MOT) from 2010 to 2011 with success. Pre-operative verification and time-out compliance rates had improved initially to 92% after process redesign and checklist revision, then later to 97-98%. Site marking had shown only gradual improvement due to challenges – from 40% in 2010 to average of 70% in 2011.

Objective

This follow-on analysis aims to look at persistent discrepancies and the corresponding actions taken, update compliance status for 2012, and share implementation progress at Day Surgery.

Methodology

This was a continuous random documentation audit of 360 cases per month done at MOT. A more in-depth data analysis was performed whereby persistent discrepancies were identified and brought up to respective department heads then, improvements were made to close the gaps.

Findings: Persistent discrepancies

Pre-operative verification and Time-Out documentation:

• Abbreviation on MOT list for add-on and emergency cases which are handwritten
• Incomplete and/or inaccurate documentation
• Use of “X” mark instead of NA for cases where special equipment or implants are not applicable
• Discrepancy in documenting availability of special equipment and implant on pre-operative verification and time-out sections

Site Marking:

• Non-compliance to site marking for spine and gynecology cases

Actions taken to resolve discrepancies

In-depth audit and feedback

Specific cases with discrepancy and staff involved were identified.

Site marking compliance breakdown per subspecialty reported to department heads (Figure 1)

Empowerment

Nurses were empowered to prevent patients without site marking from entering the MOT room

Leadership support

Surgical heads reinforced site marking for spine and gynecological cases

Reinforcement

Reception staff reinforced to write nature of procedure in full on MOT list (Figure 2)

Circulating and anaesthetic nurse to crosscheck each other’s documentation

Open communication

Staff counseling and refresher on basic and special equipments conducted

Feedback emails sent to primary surgeons whose cases had discrepancy on site marking

Figure 1. All subspecialties improved compliance during 2nd half of 2012 except for E as surgeons believed that site marking is not needed for most of the cases.

Figure 2. MOT List. Reception staff started writing nature of procedure in full, eg. Em LSCS written in full as Emergency Caesarean Section

Figure 3. Pre-operative verification and Time-Out with an average compliance rate of 95-99% in 2012.

Figure 4. From an average of 70% in 2011, it improved to 90% in 1st half of 2012, then to 91% during 2nd half, with highest rate at 97% in December.

Figure 5. Day Surgery Operating Theatre

Figure 6. Surgical team conducting Time-Out process at Day Surgery

Conclusion

• In managing risks of pre-operative processes, it is essential to tailor the practice for each discipline as different specialties have different practices.
• In-depth data analysis and feedback and full leadership support are keys to get staff to buy-in and sustain the practice.

Future Works

• To perform compliance monitoring at Day Surgery through regular audit and feedback and to close the gaps identified.
• To apply the protocol to other relevant areas such as Diagnostic Imaging department, wards and clinics where invasive procedures are being performed

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