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Assessing compliance with a care bundle for surgical site infection in surgery for spinal metastases

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**BACKGROUND**

Patients undergoing palliative surgery for secondary (metastatic) spinal tumours are at high risk of developing surgical site infection (SSI). SSI can lead to severely impaired quality of life in these patients, who are generally expected to live just six months from the time of their operation. Preventing SSI in the first instance would increase the success rate of these procedures and lead to improved outcomes, as well as avoiding extra costs related to increased hospital stay, re-operations and use of antibiotics associated with the treatment of infection. The aim of this clinical audit was to assess compliance with a care bundle which was introduced at Salford Royal NHS Foundation Trust to reduce the risk of SSI in September 2011.

**RESULTS**

Compliance for each component of the bundle was generally good, though antibiotics should be administered within 60 minutes prior to surgical start, in accordance with the WHO Surgical Safety Checklist and the local antibiotic guideline for spinal surgery.

**DISCUSSION**

Timing of pre-operative antibiotic prophylaxis must be improved to ensure the drug reaches peak concentrations in the tissues prior to the start of the operation. Before the introduction of the SSI bundle, no specific guideline for antibiotic prophylaxis existed – low compliance may reflect staff becoming accustomed to the new antibiotic guideline.

**CONCLUSION**

The introduction of a simple SSI prevention bundle by the Trust coincided with a substantial reduction in SSI rate in patients undergoing surgery for spinal metastases.

While no causal link can be determined from this study, it is likely that emphasis on a series of evidence-based interventions, in particular the usage of a particular antibiotic regimen, aids significantly in preventing SSI in high risk patients.

* Proportion of patients receiving any type of pre-operative antibiotic prophylaxis

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