

## C-section patients with BMI $\geq 35$ were routinely treated with PICO<sup>o</sup> and SSI rate was reduced to 0.4%

Superficial Surgical Site Infection (SSI) rate fell from 12.0% at baseline to 3.2% after implementation of a risk-based pathway in C-section patients and 0.4% in those treated with a PICO<sup>o</sup> dressing



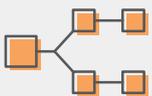
### Evidence

- Level 3 evidence
- Retrospective baseline audit followed by retrospective case audit
- Real World Evidence with a large data set



### Baseline SSI rate in all C-section patients was 12.0% and frequent readmissions were seen in those with BMI $\geq 35$

- 3-4 patients per month with BMI  $\geq 35$  were readmitted because of SSI or dehiscence
- Audit performed in 2011 at Wrightington, Wigan & Leigh NHS Trust, UK



### Implementation of a clinical pathway between February 2012 – July 2014 to mitigate against risk of SSI after C-section

- OPSITE<sup>o</sup> Post-Op Visible as standard dressing for at least 2 days
- PICO<sup>o</sup> NPWT routinely used in high risk patients with BMI  $\geq 35$  and applied in theatre
  - 32.6% had BMI  $\geq 40$



### Total SSI rate reduced to 3.2% with no readmissions

- SSI rate in lower risk patients (BMI  $< 35$ ) treated with OPSITE<sup>o</sup> Post-op Visible = **3.6%**
- SSI rate in high risk patients (BMI  $\geq 35$ ) treated with PICO<sup>o</sup> = **0.4%**



### The use of PICO<sup>o</sup> in the high risk C-section patient was cost effective

- Cost of an SSI £3,716<sup>1</sup>
- Cost of initial clinical pathway £133,776
- Cost of new clinical pathway £11,476\* (saving £122,300 annually)

\*Average of 7.97 patients with a high BMI per month

## COMMENTS:

UK surveillance data<sup>2</sup> indicates that the SSI rate after C-section is 9.6% but increases to 19.8% in patients with BMI  $\geq 35$ . This further exemplifies the impressive extent of reduction in SSI seen in C-section patients with BMI  $\geq 35$  after implementation of PICO<sup>o</sup> in this study which fell to 0.4%.

This is a non-comparative study and although the effect is very substantial there were a range of strategies implemented within the new clinical pathway and so it cannot be concluded that PICO<sup>o</sup> was the sole driver for reduced SSI rate after C-section.

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Title:	Reducing C-section wound complications
Aim of the study:	Implementation of a pathway approach to aim to reduce SSI rates after C-section including use of PICO <sup>o</sup> in high risk patients with a BMI $\geq 35$
Study Type:	Retrospective baseline audit followed by retrospective case audit
Wound Type:	Caesarean Section
Speciality/Indication:	Obstetrics & Gynaecology
Products:	PICO <sup>o</sup> & OPSITE <sup>o</sup> Post-op Visible
Number of patients:	1644 patients: (PICO <sup>o</sup> pathway n=239; OPSITE <sup>o</sup> Post-op Visible pathway n=1405)
Reference:	<i>The Clinical Services Journal</i> (2015) April: 2-6
Details:	Other versions of this evidence exist but this is the most complete and fully reported version   Non-PubMed journal

<sup>1</sup> Jenks et al 2014: Clinical and economic burden of surgical site infection (SSI) and predicted financial consequences of elimination of SSI from an English hospital. *J Hosp Infect* 86(1):24-33.

<sup>2</sup> Wloch et al 2012: Risk factors for surgical site infection following caesarean section in England: results from a multicentre cohort study. *BJOG* 119 (11):1324-1333

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