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**PreciSSIon: a collaboration to reduce surgical site infection after elective colorectal surgery**

**BMJ awards application: Supporting information**

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C:\Users\millie.okeeffe\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Great Western Hospitals FT Col A (2).jpg**In collaboration with**

# 1. Surgical wound healing questionnaire sent to patients

**Surgical wound healing questionnaire**

Dear Patient,

We are monitoring all patients with surgical wounds, to detect patients who develop wound infections after surgery.

We would be grateful if you could complete this questionnaire and return it in the pre-paid envelope.

Have you had any problems with the healing of your wound?

Yes [ ] Please continue with this questionnaire

No [ ] You do not need to continue with any further questions.

Did the problems with your wound arise when you were in hospital?

Yes [ ]

No [ ]

Since you were discharged from hospital after your operation have you noticed any of the following symptoms?

Has there been any discharge or leakage of fluid from any part of the wound?

Yes [ ]

No [ ]

If yes, was it either: Clear or blood stained [ ]

Yellow/green (pus) [ ]

Other – please specify\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Please tick any of the following additional symptoms that applied to your wound:

Pain or soreness in addition to the discomfort experience

following the operation [ ]

Redness or inflammation spreading from the edges of the wound [ ]

The area around the wound felt warmer/hotter than the

surrounding skin [ ]

The area around the wound became swollen [ ]

The edges of any part of the wound separated or gaped open [ ]

Did any health care worker take a sample from your wound to send to the laboratory?

Yes [ ]

No [ ]

PLEASE TURN OVER

If you saw a health care worker because of these symptoms, please indicate who you saw from the list below –

GP [ ]

District Nurse [ ]

Midwife [ ]

Doctor or Nurse at the hospital [ ]

Other – please specify [ ]

Did not see anyone about my wound [ ]

Please tell us the date you noticed these symptoms.

If you cannot remember the exact date, please give an approximate date \_\_\_/\_\_\_/\_\_\_

Have you been prescribed antibiotics for an infection in the wound?

Yes [ ]

No [ ]

If yes, who prescribed them? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Have you been readmitted to hospital with an infection of the surgical wound?

Yes [ ]

No [ ]

If yes, which hospital? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Other comments \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# 2. Surgical Site Infection (SSI) rate across hospitals

Average SSI rates before and after implementation of bundle for all hospitals. To note: Hospital 2 has had a 4% SSI rate since August 2020.

|  |  |  |  |
| --- | --- | --- | --- |
| Hospital | Baseline SSI (no. patients) | Post bundle SSI (no. patients) | Response rate |
| 1 | 15%(198) | 7% (187) | 74% |
| 2 | 8% (128) | 8.6% (197) | 63% |
| 3 | 22% (74) | 6% (136) | 100% |
| 4 | 12% (44) | 8.5% (193) | 86% |
| 5 | 30% (208) | 15% (175) | N/A |
| 6 | 20% (197) | 11% (217) | 93% |
| 7 | 20% (54) | 7% (42) | 68% |
| ***Mean all hospitals*** | ***18% (903)*** | ***9% (1147)*** | ***81%*** |

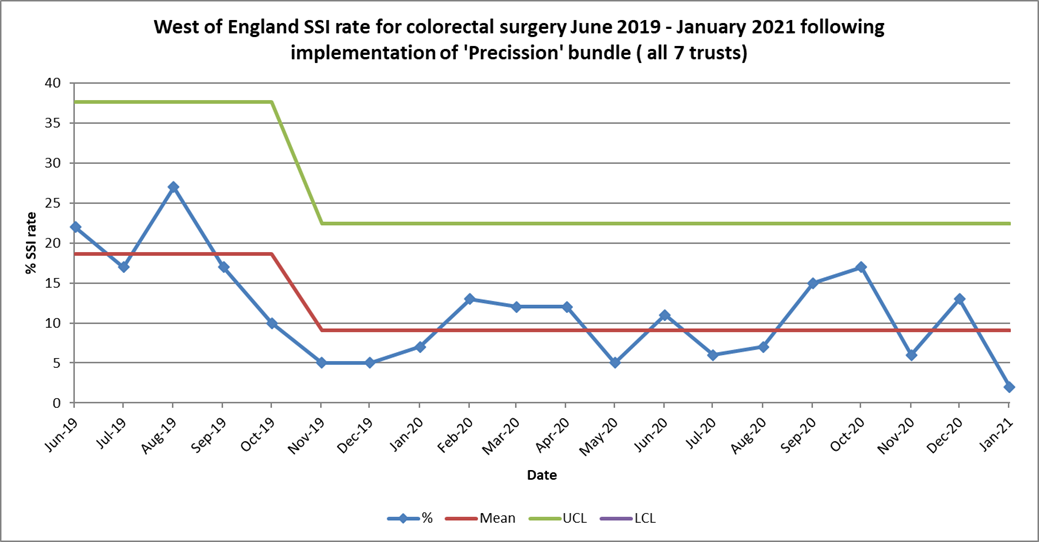
# 3. PreciSSIon bundle element compliance across hospitals

The table below shows compliance with each bundle element for each hospital. To note: Average compliance across the region is between 70% and 95% for each element of the PreciSSIon bundle. Some elements were easier to measure and some were easier to implement; for example it is not always possible to use a wound protector.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Hospital | Chlorhexidine | Antibacterial sutures | 2nd dose antibiotics after 4hrs | Wound protector |
| 1 | 89% | 58% | 32% | 34% |
| 2 | 91% | 68% | 34% | 33% |
| 3 | 100% | 90% | 85% | 90% |
| 4 | 84% | 86% | 98% | 83% |
| 5 | 100% | 100% | 67% | 61% |
| 6 | 100% | 100% | 100% | 91% |
| *7* | *100%* | *71%* | *100%* | *100%* |
| ***Mean all hospitals*** | ***95%*** | ***82%*** | ***73%*** | ***70%*** |

# 4. SPC chart

This chart demonstrates the decrease in combined SSI rates across the region following implementation of PreciSSIon bundle.



**PreciSSIon implemented**

# 5. PreciSSIon toolkit

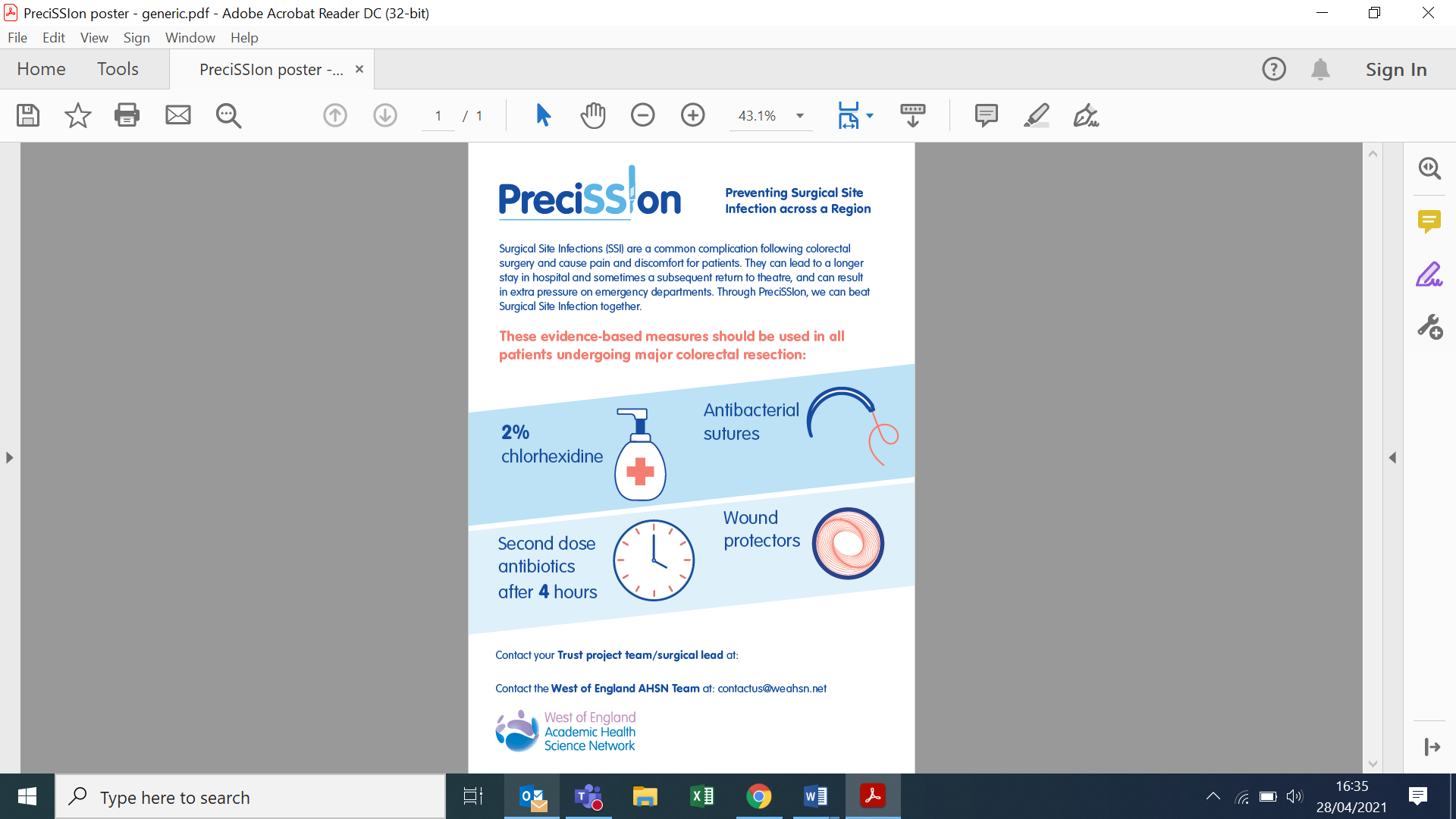
The toolkit was produced to support teams with implementing the bundle and data collection in their hospital teams.

The toolkit is available to download here: [PreciSSIon-Implementation-Toolkit-v5.0.pdf (weahsn.net)](https://www.weahsn.net/wp-content/uploads/2020/12/PreciSSIon-Implementation-Toolkit-v5.0.pdf)

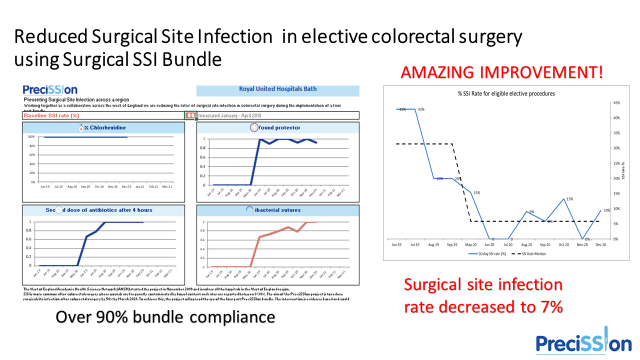
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# 6. PreciSSIon promotional and feedback posters

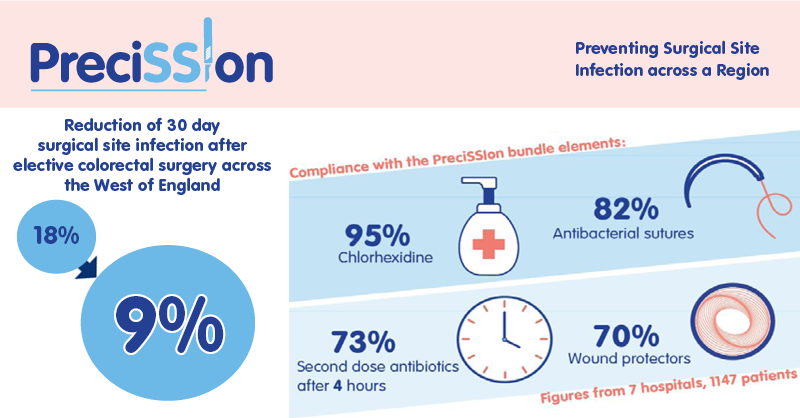
Promotional posters for display in operating theatres and other areas were produced and shared with the collaborative, as well as editable posters to display data to encourage engagement with the project.



Example of poster feedback to individual hospitals showing improvements:



Twitter card celebrating the reduction in SSI rates and compliance figures across the West of England, April 2021:



# 7. PreciSSIon video for theatre nurses

The video was created to explain how Theatre Nurses play a vital role in preventing SSI and how the PreciSSIon Bundle can help.

View the video here: <https://vimeo.com/460466609> and a more generic ‘explainer’ video for the PreciSSIon project here: <https://vimeo.com/463380575>

[](https://vimeo.com/460466609)

# 8. Engagement with the PreciSSIon Collaborative

A Tweet from a member of the collaborative celebrating the March 2021 PreciSSIon event.

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<https://gettingitrightfirsttime.co.uk/>

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Do surgical care bundles reduce the risk of surgical site infections in patients undergoing colorectal surgery? A systematic review and cohort meta-analysis of 8,515 patients Judith Tanner, PhD,a Wendy Padley, MSc,b Ojan Assadian, MD,c David Leaper, MD,c Martin Kiernan, MPH,d and Charles Edmiston, PhD,e Nottingham, Leicester, Huddersfield, and London, UK, and Milwaukee, WI <http://dx.doi.org/10.1016/j.surg.2015.03.009> Surgery, Volume 158, Number 1; 66-77

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