

Deep dive tool for Orthopaedic SSI reviews - *DRAFT*

I. Background information

1. Patient name: _____ 1b. Patient NHI: _____
- 1c. Hospital: _____
2. Brief narrative description of SSI (patient description, date and type of original procedure, indication for surgery, theatre number, admission, readmission date and discharge date, date of signs/symptoms, date SSI confirmed, type of SSI, organisms identified).

3. Names of surgeons (registrar, consultant, etc.), anaesthetist and scrub team involved in the surgery.

4. Patient attended a pre-admission clinic? ☐ Yes ☐ No ☐ Unknown

II. Patient risk factors – was the patient identified as higher risk of surgery pre-operatively?

1. Revision surgery? ☐ Yes ☐ No ☐ Unknown

2. Prior infection in joint? ☐ Yes ☐ No ☐ Unknown

3. Age: _____

4. Medical comorbidities (ASA score): ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ Not recorded

Other comorbidities: _____

5. Obesity (elevated BMI)? ☐ <30 ☐ 30-<35 ☐ 35-40 ☐ >40

If BMI not known, specify height and weight: _____

6. Antibiotic allergy? ☐ Yes ☐ No ☐ Unknown

If yes, list antibiotics: _____

7. Diabetes ☐ Type 1 ☐ Type 2 ☐ Type 2 on insulin ☐ No ☐ Unknown

8. Haemoglobin A1c prior to surgery:	<input type="checkbox"/> <7%	<input type="checkbox"/> ≥7%	<input type="checkbox"/> Unknown
9. Poor compliance with medical advice in past?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
10. Smoking status:	<input type="checkbox"/> Current (smoked within 1 month prior to surgery)	<input type="checkbox"/> Past (quit > 1 month)	<input type="checkbox"/> Never
11. Skin conditions:	<input type="checkbox"/> Psoriasis	<input type="checkbox"/> Dermatitis	<input type="checkbox"/> Lesions
	<input type="checkbox"/> Boils	<input type="checkbox"/> Under control	<input type="checkbox"/> Unknown
12. Pre-op renal function:	<input type="checkbox"/> Normal	<input type="checkbox"/> Poor	<input type="checkbox"/> Acute renal failure post-op
	<input type="checkbox"/> GFR	<input type="checkbox"/> Creatinine	<input type="checkbox"/> Unknown
13. Duration of hospitalisation (LOS days)	Pre-operative: _____		
	Post-operative: _____		
14. Elective or acute (emergent) procedure?	<input type="checkbox"/> Elective	<input type="checkbox"/> Acute	<input type="checkbox"/> Unknown
15. Infection at distal sites at time of surgery?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
<i>If yes, specify site:</i> _____			
16. Admission from another health care facility?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
17. <i>S aureus</i> colonisation?	<input type="checkbox"/> Yes, MSSA	<input type="checkbox"/> Yes, MRSA	<input type="checkbox"/> No
<input type="checkbox"/> Unknown			
18. Other risk factors identified:			

19. <i>If yes, was a specific plan put in place including referral, deferment of surgery, etc.?</i>			

III. Pre-operative measures

1. Admission day before surgery?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
2. Hair removal:	<input type="checkbox"/> Clipping	<input type="checkbox"/> Shaving	<input type="checkbox"/> Other
	<input type="checkbox"/> None		
3. Components of Staph bundle:			
Nasal decolonisation:	<input type="checkbox"/> Yes, self-administered	<input type="checkbox"/> Yes, supervised by HCW	<input type="checkbox"/> No
	<input type="checkbox"/> Unknown		
Skin decolonisation:	<input type="checkbox"/> Yes, self-administered	<input type="checkbox"/> Yes, supervised by HCW	<input type="checkbox"/> No
	<input type="checkbox"/> Unknown		
4. Clear pre-operative instructions given in appropriate language?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown

IV. Operative measures

1. Patient's temperature abnormal ($>38.0^{\circ}\text{C}$ or $\leq 36.0^{\circ}\text{C}$) between pre-operative to recovery areas? ☐ Yes ☐ No ☐ Unknown

2. Appropriate antibiotic prophylaxis compliance (dose, timing)? ☐ Yes ☐ No ☐ Unknown

If no, specify non-compliance:

* Note: vancomycin is needed (in addition) if patient is colonised with MRSA

Additional dose administered? ☐ Yes ☐ No ☐ Unknown

3. Antibiotics appropriate for alert (allergies, etc.): ☐ Yes ☐ No ☐ Unknown

4. Skin preparation: Alcohol-based Chlorhexidine or Alcohol-based Povidone Iodine? ☐ Yes ☐ No ☐ Unknown

If no, specify product used:

5. Theatre attire, etc. worn according to hospital policy? ☐ Yes ☐ No ☐ Unknown

6. Tissue oxygenation optimised (80% fraction of inspired oxygen (FiO_2) intraoperative and 2-6 hrs postoperatively if general anaesthesia with endotracheal intubation used): ☐ Yes ☐ No ☐ Unknown

7. Blood loss? ☐ None ☐ $\leq 1.5\text{L}$ ☐ $> 1.5\text{L}$ ☐ Unknown

8. Tourniquet used? ☐ Yes ☐ No ☐ Unknown

If yes, was tourniquet applied after antibiotic prophylaxis? ☐ Yes ☐ No ☐ Unknown

9. Antibiotics cement used? ☐ Yes ☐ No ☐ Unknown

10. DVT prophylaxis administered? ☐ Yes ☐ No ☐ Unknown

11. Prolonged duration of surgery (≥ 2 hours for hip and knee surgery)? ☐ Yes ☐ No ☐ Unknown

If yes, specify reasons:

12. Antimicrobial (eg, triclosan) sutures used? ☐ Yes ☐ No ☐ Unknown

13. Orthopaedics space suits used? ☐ Yes ☐ No ☐ Unknown

14. Any unusual intraoperative incidents (documented variations from the norm)?

V. Post-operative measures

1. Blood glucose control checked? ☐ Yes, <200mg/dL ☐ Yes, ≥200mg/dL ☐ No ☐ Unknown

What was patient's highest blood glucose level from preoperative to postoperative day one (if checked)? _____

2. Surgeon notified at time of infection diagnosis? ☐ Yes ☐ No ☐ Unknown

3. Referral process: patient referred properly (as opposed to given antibiotics by GP without wound being looked at)? ☐ Yes ☐ No ☐ Unknown

4. Intraoperative wound interventions (e.g. washouts leading to infection) following surgery prior to infection being identified? ☐ Yes ☐ No ☐ Unknown

5. Antibiotic prophylaxis followed in accordance with standard practice/guidelines? ☐ Yes ☐ No ☐ Unknown

6. Wound care: a. post-op dressing: _____

b. time dressing left in place: _____

- c. any interventions needed? ☐ Yes ☐ No ☐ Unknown

If yes, please specify? _____

- d. discharge wound care instructions provided? ☐ Yes ☐ No ☐ Unknown

7. Heavy post-op oozing? ☐ Yes ☐ No ☐ Unknown

8. DVT prophylaxis (eg, Tranexamic acid) used? ☐ Yes ☐ No ☐ Unknown

VI. Miscellaneous

Any other relevant factors identified?