Health Quality & Safety Commission New Zealand
Kupu Taurangi Hauora o Aotearoa

SSI improvement programme meeting

Surgical site infection (SSI) investigation quarterly review

28 July 2022

SSII Surgical Site Infection Improvement Programme

Opening karakia

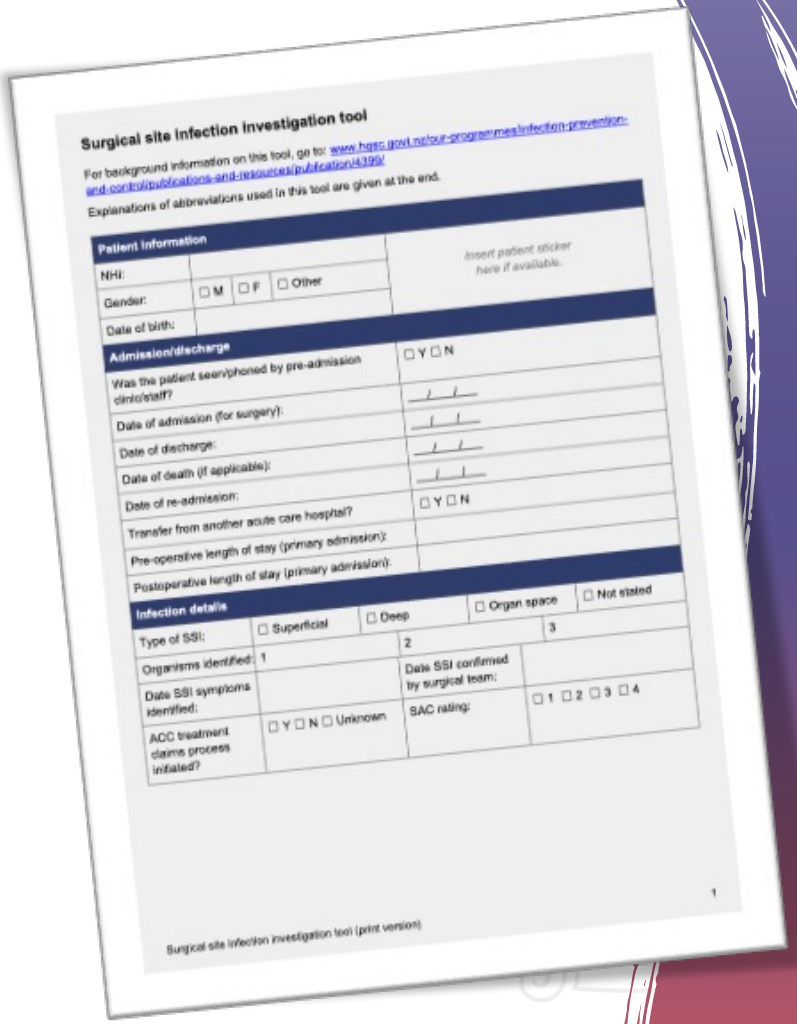
E te huinga	For this gathering
Whāia te mātauranga, kia mārama	seek knowledge, for understanding
Unuhia te anipā,	draw out the anxiety
te nguha, kia mahea	and uncertainty, clear it away
Kia whai take ngā mahi katoa	have purpose in all that you do
Tū māia, tū kaha	stand tall, be strong
Aroha atu, aroha mai	let us show respect
Tātou i a tātou katoa	for each other.
Hui e tāiki e	It is complete

Agenda

Welcome and introductions Opening karakia	Nikki Nikki
The SSI investigation process	Amanda Michelle
Case study	Ruth
Trends in SSI	Ruth
Evidence for *staphylococcus* decolonisation	Arthur
Update to online resources	Ruth
Closing karakia	Nikki

SSI investigation process for light surveillance

- Districts that have moved to light surveillance are required to undertake a detailed review of orthopaedic SSIs, prioritising deep and organ-space infections



Surgical site infection investigation tool

For background information on this tool, go to: www.hqsc.govt.nz/our-programmes/infection-prevention-and-control/publications-and-resources/publication/4399/

Explanations of abbreviations used in this tool are given at the end.

Patient information				
NHI:				*Insert patient sticker here if available.*
Gender:	☐ M	☐ F	☐ Other	
Date of birth:				

Admission/discharge	
Was the patient seen/phoned by pre-admission clinic/staff?	☐ Y ☐ N
Date of admission (for surgery):	/ /
Date of discharge:	/ /
Date of death (if applicable):	/ /
Date of re-admission:	/ /
Transfer from another acute care hospital?	☐ Y ☐ N
Pre-operative length of stay (primary admission):	
Postoperative length of stay (primary admission):	

Infection details				
Type of SSI:	☐ Superficial	☐ Deep	☐ Organ space	☐ Not stated
Organisms identified:	1	2	3	
Date SSI symptoms identified:		Date SSI confirmed by surgical team:		
ACC treatment claims process initiated?	☐ Y ☐ N ☐ Unknown	SAC rating:	☐ 1 ☐ 2 ☐ 3 ☐ 4	

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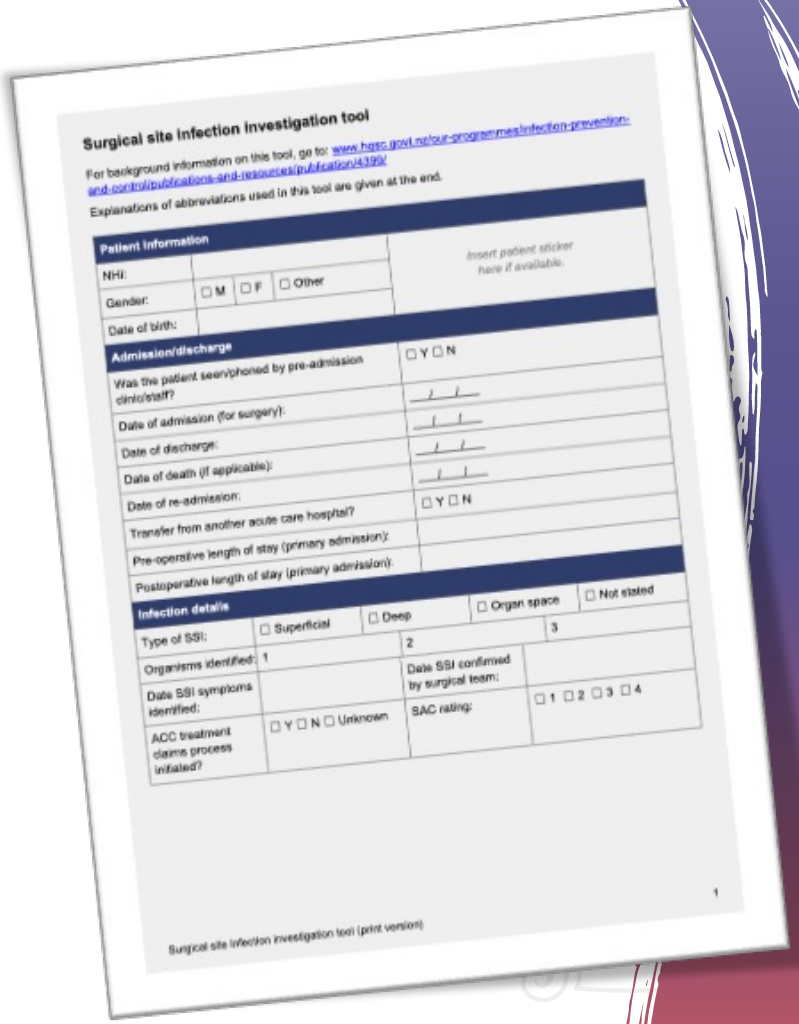
Surgical site infection investigation tool (print version)

SSI investigation process for light surveillance

- We recommend that superficial SSIs that lead to readmission or further treatment are also investigated



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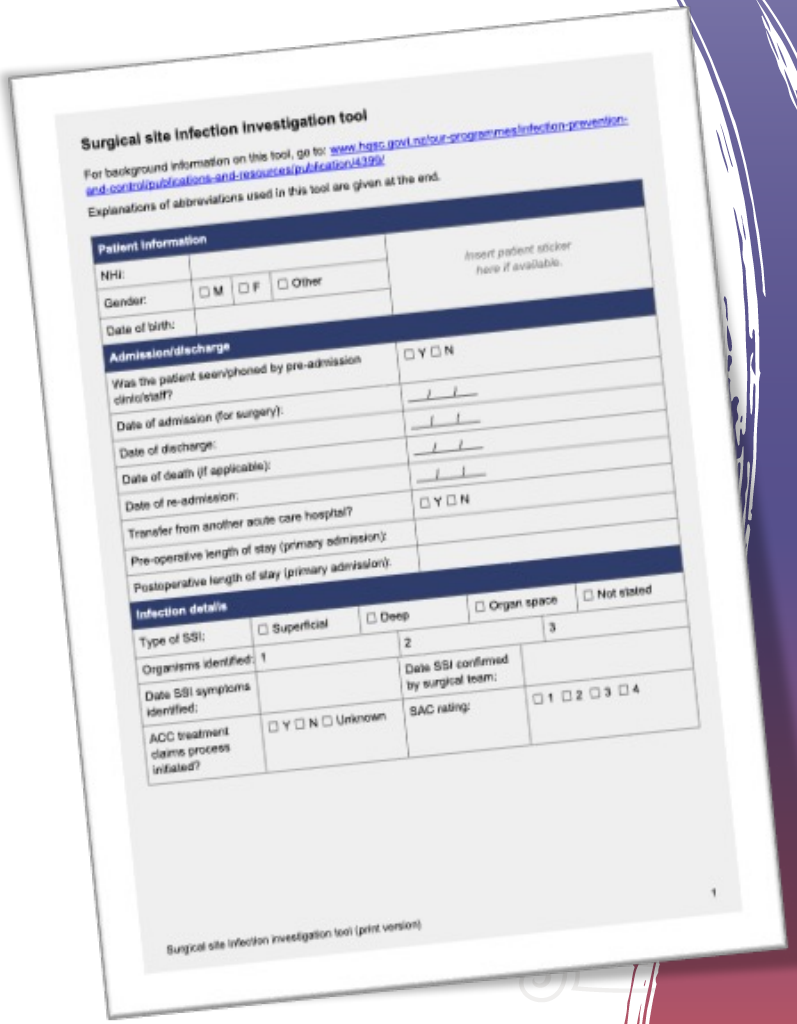
Date SSI symptoms identified:		Date SSI confirmed by surgical team:		
ACC treatment claims process initiated?	☐ Y ☐ N ☐ Unknown	SAC rating:	☐ 1 ☐ 2 ☐ 3 ☐ 4	

SSI investigation process for light surveillance

- For those who have continued with full surveillance, use of the SSI investigation tool is optional but encouraged



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SSI champion responsibilities

1. Complete the SSI investigation at any time using the Commission's SSI investigation tool
2. Summarise the SSI investigations on the Commission’s quarterly Excel summary report sheet

Completing the quarterly SSI summary report

Key fields

1. National monitor form ID (this is not the NHI)
2. Date of SSI
3. Procedure type
4. Type of infection
5. Key findings
6. Key action points

Example of a quarterly report

Surgical site infection investigation form quarterly summary

DHB Select from drop down list	Please select
Date/Quarter	Dec 21-Mar 22

Case	National Monitor Form ID	Date of SSI	Procedure Type	Type of infection	Key findings	Key action points
Case 1	xxxx	6-Feb-22	Knee	Deep	ASA 3, smoker, hx peripheral ulcers anti-staph bundle not completed	Follow up why anti-staph bundle not completed
Case 2	xxxx	20/02/22	Hip	Deep	smoker,IVDU, ASA 3 anti-staph bundle not completed	Follow up why anti-staph bundle not completed
Case 5	xxxx	28/02/22	Knee revision	Superficial	ASA 3, High BMI anti-staph bundle not completed	Follow up why anti-staph bundle not completed

Using the SSI investigation form in ICNet

Michelle Taylor to demonstrate

Submitting the quarterly summary report

- Submit quarterly summary reports on 1 April, 1 July, 1 October and 1 January

Submitting the quarterly summary report

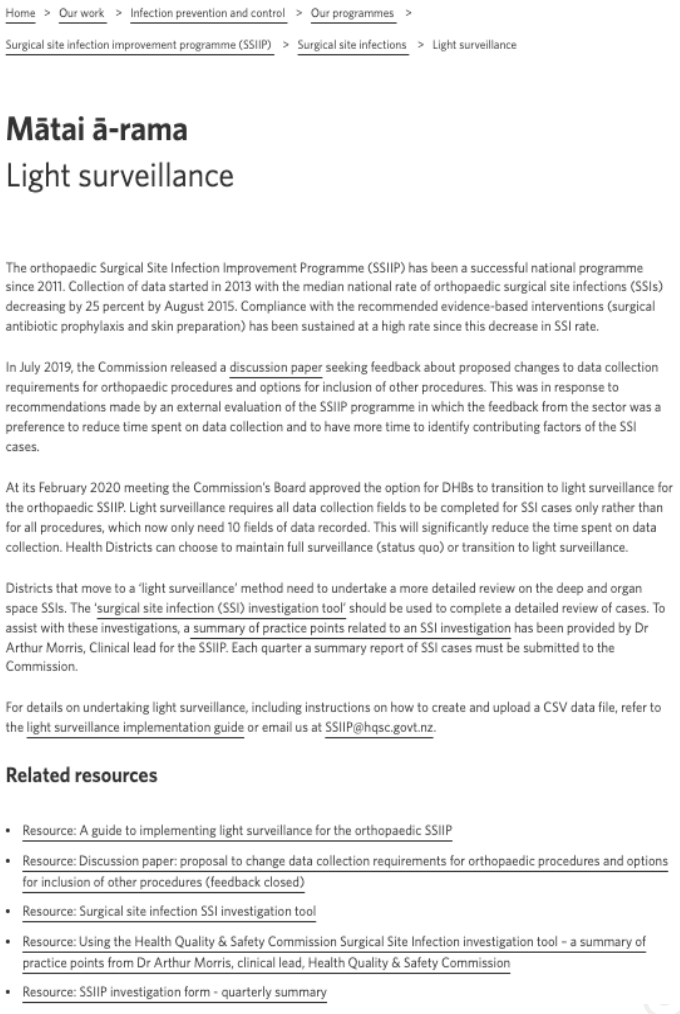
- Submit data on SSIs investigated in the three months before the meeting, eg, for July, submit infections investigated in April, May or June

Submitting the quarterly summary report

- Meetings to discuss the findings of these summary reports are held in April, July, October and January to monitor trends and discuss actions and quality improvement measures with peers.

Resources

- Visit the IPC light surveillance web page on the Commission website
  - tool, forms and resources
- New ‘A guide to implementing light surveillance for the orthopaedic SSIIP’
- Contact us on: SSIIP@hqsc.govt.nz



Home > Our work > Infection prevention and control > Our programmes > Surgical site infection improvement programme (SSIIP) > Surgical site infections > Light surveillance

Mātai ā-rama
Light surveillance

The orthopaedic Surgical Site Infection Improvement Programme (SSIIP) has been a successful national programme since 2011. Collection of data started in 2013 with the median national rate of orthopaedic surgical site infections (SSIs) decreasing by 25 percent by August 2015. Compliance with the recommended evidence-based interventions (surgical antibiotic prophylaxis and skin preparation) has been sustained at a high rate since this decrease in SSI rate.

In July 2019, the Commission released a discussion paper seeking feedback about proposed changes to data collection requirements for orthopaedic procedures and options for inclusion of other procedures. This was in response to recommendations made by an external evaluation of the SSIIP programme in which the feedback from the sector was a preference to reduce time spent on data collection and to have more time to identify contributing factors of the SSI cases.

At its February 2020 meeting the Commission's Board approved the option for DHBs to transition to light surveillance for the orthopaedic SSIIP. Light surveillance requires all data collection fields to be completed for SSI cases only rather than for all procedures, which now only need 10 fields of data recorded. This will significantly reduce the time spent on data collection. Health Districts can choose to maintain full surveillance (status quo) or transition to light surveillance.

Districts that move to a 'light surveillance' method need to undertake a more detailed review on the deep and organ space SSIs. The 'surgical site infection (SSI) investigation tool' should be used to complete a detailed review of cases. To assist with these investigations, a summary of practice points related to an SSI investigation has been provided by Dr Arthur Morris, Clinical lead for the SSIIP. Each quarter a summary report of SSI cases must be submitted to the Commission.

For details on undertaking light surveillance, including instructions on how to create and upload a CSV data file, refer to the light surveillance implementation guide or email us at SSIIP@hqsc.govt.nz.

Related resources

- Resource: A guide to implementing light surveillance for the orthopaedic SSIIP
- Resource: Discussion paper: proposal to change data collection requirements for orthopaedic procedures and options for inclusion of other procedures (feedback closed)
- Resource: Surgical site infection SSI investigation tool
- Resource: Using the Health Quality & Safety Commission Surgical Site Infection investigation tool – a summary of practice points from Dr Arthur Morris, clinical lead, Health Quality & Safety Commission
- Resource: SSIIP investigation form - quarterly summary

Case study

- 70-year-old man
- Superficial SSI following revision of left total knee replacement
  - Discharged day 3 after surgery
  - Readmitted 11 days post-op with signs and symptoms of infection
  - SSI confirmed 7 days after readmission by surgical team
- *Staphylococcus aureus*

SSI risk factors

Patient risk factors prior to surgery	(Indicates increased risk)	(Indicates neutral risk)	
Revision surgery:	☒ Y	☐ N	☐ Unknown
Prior infection in joint:	☐ Y	☒ N	☐ Unknown
ASA score > 2 ASA score: 3	☒ Y	☐ N	☐ Unknown
Infection at distal sites at time of surgery: Site(s):	☐ Y	☒ N	☐ Unknown
Age > 60 years:	☒ Y	☐ N	☐ Unknown
Diabetes type I/IDDM:	☐ Y	☒ N	☐ Unknown
Diabetes type II/NIDDM:	☐ Y	☒ N	☐ Unknown
HbA1c ≥ 7% prior to surgery:	☐ Y	☒ N	☐ Unknown
Patient smokes (within 1 month prior to surgery):	☐ Y	☒ N	☐ Unknown
Obesity – BMI > 30: ☐ 30–34.9 ☐ 35–40 ☒ > 40	☒ Y	☐ N	☐ Unknown
S aureus colonisation ☐ MSSA ☐ MRSA	☐ Y	☒ N	☐ Unknown
Skin condition – active or poorly controlled: ☐ Psoriasis ☐ Dermatitis ☐ Boils ☐ Other Site and extent:	☐ Y	☒ N	☐ Unknown
Immunosuppression (eg, steroids, cytotoxic drugs):	☐ Y	☒ N	☐ Unknown
Any other risk factors identified? If yes, was there a specific plan put in place, eg, referral, deferment of surgery? ☐ Y ☐ N Describe:	☐ Y	☒ N	☐ Unknown

ASA, American Society of Anaesthesiologists; BMI, body mass index; IDDM, insulin-dependent diabetes mellitus; MRSA, methicillin-resistant *S. aureus*; MSSA, methicillin-susceptible *S. aureus*; NIDDM, non-insulin-dependent diabetes mellitus.

SSI risk factors

- Revision surgery
- ASA score of 3
- Age >60 years
- BMI >40

Risk factors not identified

No problems identified with:

- procedure
- post-op clinical management, eg, oxygen saturation, blood loss, etc.
- wound management prior to discharge
- discharge process (given written wound instructions and discharged to own home).

S. aureus factors

- Nil *S. aureus* colonisation before surgery
- No compliance with nasal or skin decolonisation doses
- But *S. aureus* infection

SSI summary findings

Pre-operative anti-staphylococcal decolonisation

- Not documented
- Not used/given

Pre-operative anti-staphylococcal bundle						
Skin decolonisation compliance:	☐ No bundle	☐ Full (all doses)	☐ Partial (some doses)	☐ None (no doses)	☐ N/A (skin not part of bundle)	☐ Unknown (not documented)
Nasal decolonisation compliance:	☐ No bundle	☐ Full (all doses)	☐ Partial (some doses)	☐ None (no doses)	☐ N/A (nasal not part of bundle)	☐ Unknown (not documented)

Quality improvement

Problem

- Staphylococcal decolonisation information not completed in theatre/post-anaesthetic care unit (PACU)
- Change to electronic forms

Action

- Infection prevention and control (IPC) work with PACU to ensure bundle compliance information is captured

Group discussion point

- How does your district capture *S. aureus* decolonisation data?
- Does this work?
- If not, why not?
- How could it be improved?

Systematic review and meta-analysis of *S. aureus* SSI prevention in orthopaedic and cardiac surgery

Dr Arthur Morris, Clinical lead

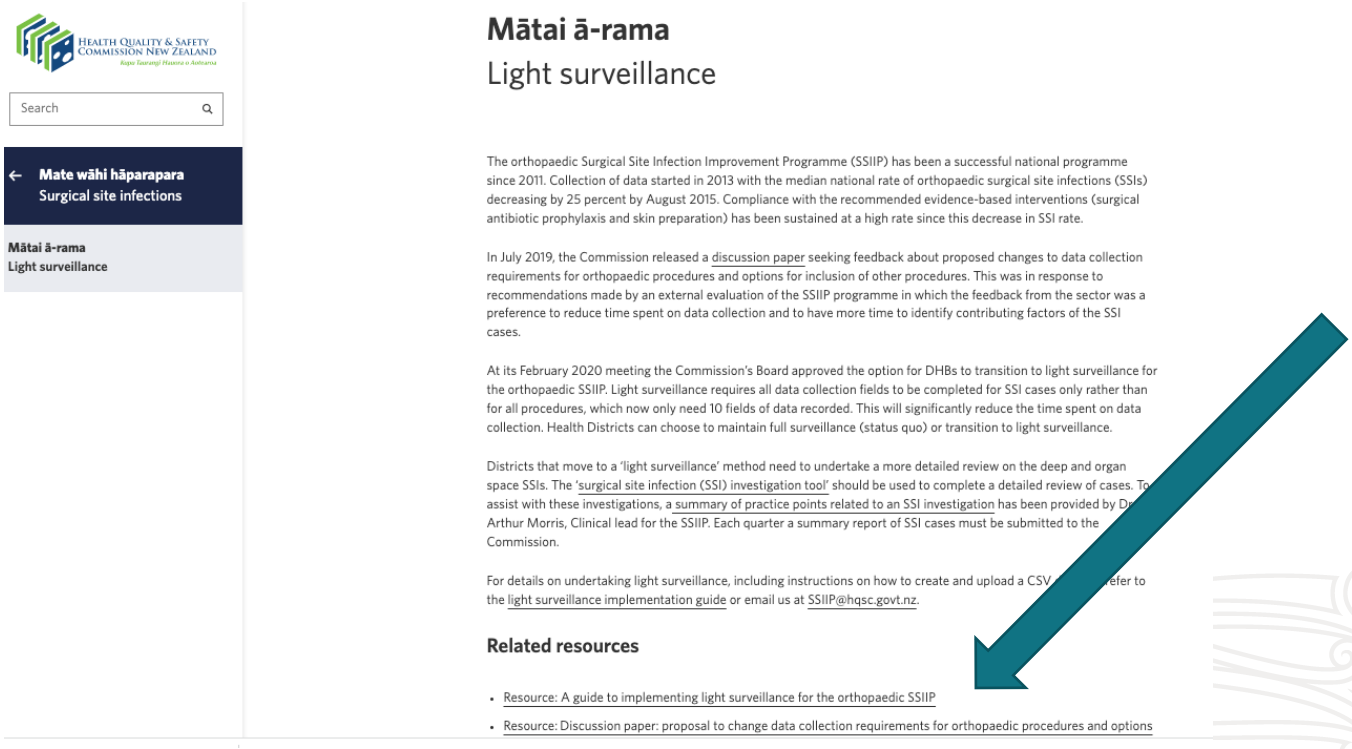
(presentation available on request from ssiip@hqsc.govt.nz)

Health Quality & Safety Commission New Zealand
Kupu Taurangi Hauora o Aotearoa

Website resources – update

Health Quality & Safety Commission New Zealand
Kupu Taurangi Hauora o Aotearoa

Light surveillance guide



A guide to implementing light surveillance for the orthopaedic SSIIP

18th July, 2022 | Infection prevention and control | Multimedia

This document outlines the process for undertaking 'light surveillance' for the orthopaedic SSIIP. It supplements the Orthopaedic surgery implementation manual.

Contact the Health Quality & Safety Commission (the Commission) at SSIIP@hqsc.govt.nz if you would like to discuss changing to light surveillance. The IPC team can support you with the transition and determine the start date for your organisation.

Attachments

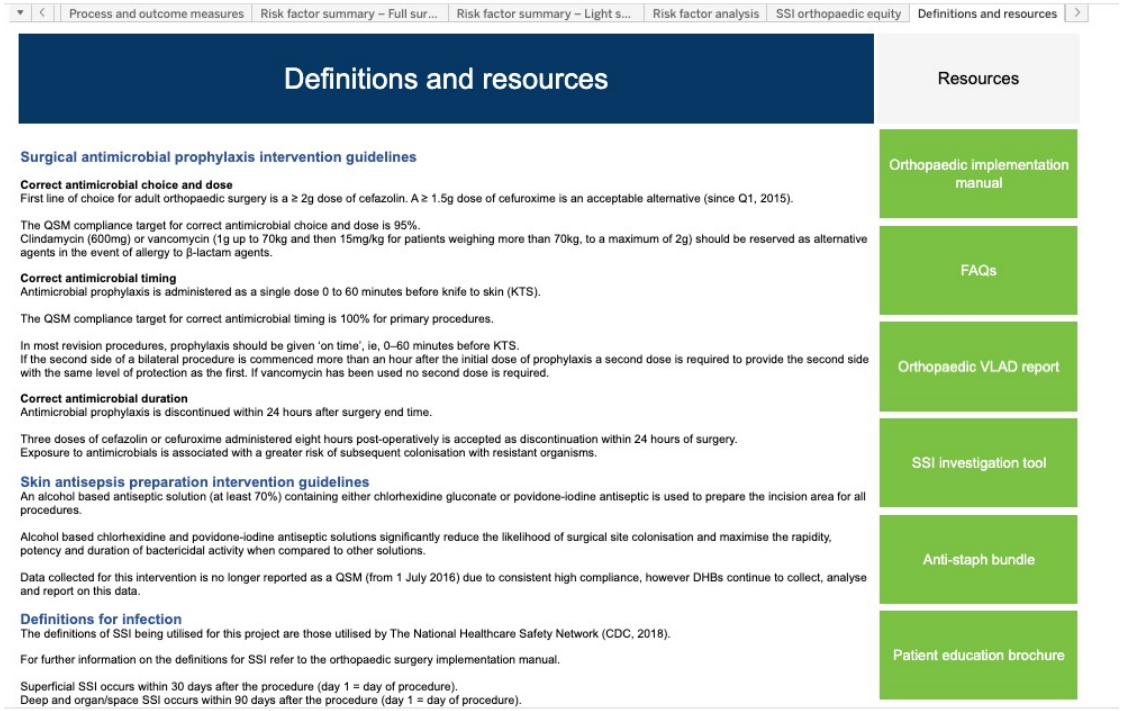
A guide to implementing light surveillance for the orthopaedic SSIIP - July 2022

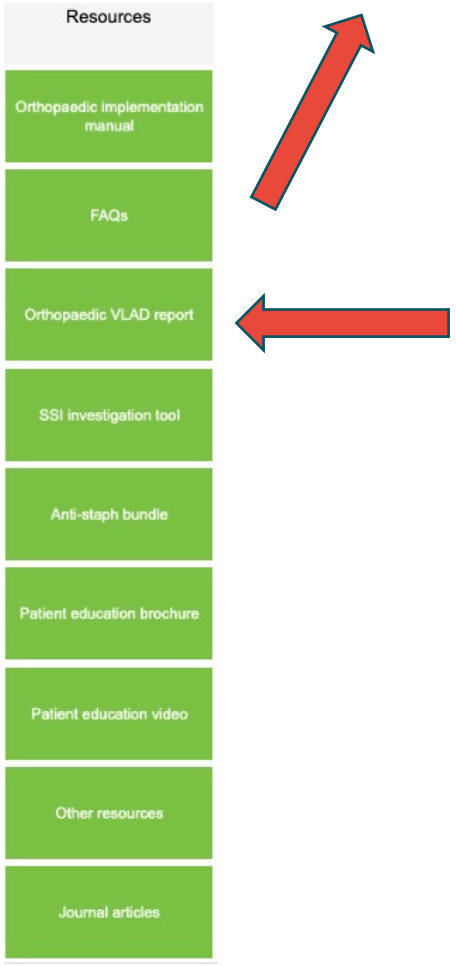
PDF | 288 KB

A guide to implementing light surveillance for the orthopaedic SSIIP - July 2022

DOCX | 407 KB

Accessing resources from the dashboard





Conclusion

- Questions?
- Comments?
- Next meeting

Request for SSI scenarios

Please submit scenarios for orthopaedic or cardiac SSIs that could be used for future training to:

SSIIP@hqsc.govt.nz

Closing karakia

Kua mutu a tātou mahi
Ka tae te wā
mō te whakairi te kete
I te kete kōrero,
I te kete whakaaro
Hei tiki atu anō mā tatou
Tauwhirotia mai mātou katoa
Ō mātou hoa
Ō mātou whānau
Āio ki te Aorangi.
Hui e tāiki e.

Our work has finished
the time has arrived
to gather one's thoughts in the basket
that contains discussion
and concepts
that we may use it again in the future
Protect us all
our colleagues
our families
Peace to the universe.
It is complete.