

FAQs about implementing SSSL toolkits

General

Will full implementation be expected by the end of February?

The month of February is a time for sites to familiarise themselves with the toolkits, establish and instruct teams, and collect baseline data on the interventions. The SSSL project is aware that sites have not yet received funding for the project, and this may impact on their ability to fully implement the interventions. The SSSL project office will be ready to collect data during the first week of March.

Originally the project was planned to run from October 2005 to October 2006. Given the delays in commencement, what is the expect timeline for the project? And will there be additional funding if the life of the project is extended?

These issues will be raised with the new Safety & Quality Commission once it is established.

The outcome measures are not all captured on the audit tools. Do we need to create another tool to capture this information?

We have not provided tools for the outcome measures. Part of the reason is that for a number of the interventions, sites will already have processes in place (for example, SSIs), for other interventions we are asking sites to adopt a definition of their choosing, therefore it is not possible to provide a generic tool (for example, VAPs). It may be necessary for sites to develop tools for collecting the Outcome data.

Improving care for AMI

Should the time-frame for receipt of Aspirin on the admission audit tool for both STEMI and non-STEMI be "within 30 minutes" of arrival?

The toolkit states that the patient should receive an antiplatelet agent "*before, or within 24 hours of admission*". The term '*before*' is an indication of the intended optimal time. Twenty-four hours is mentioned as a cut off time for the sake of the audit.

Can patients diagnosed with unstable angina be included in the audits for non-STEMI?

The Heart Foundation's 'Management of Unstable Angina Guideline - 2000' identifies the distinction between unstable angina and non-STEMI as being 'cloudy' and the diagnoses of unstable angina, minor myocardial damage and non-STEMI representing a continuum¹.

At the time of admission, it is likely that patients with unstable angina will receive the same care as patients with non-STEMI, and **may** continue to receive the same level of care throughout their stay. The point really is about the care that is received. If a patient diagnosed with unstable angina is receiving care as per the bundle, by all means audit accordingly.

Our hospital is often required to send patients to another hospital for treatment. If this occurs, for example, with an AMI patient, how is the patient represented in our data collection?

If possible exclude these patients from the audit. If it is not possible to exclude them because the sample size would be adversely affected, you can demonstrate compliance in care for the period the patient is at your hospital. If the patient receives all the components for STEMI admission, then is transferred, you should consider this patient to be compliant. The same will be true for the receiving hospital, if the patient arrives after receiving the admission components at your facility, then the receiving hospital will concentrate on demonstrating compliance with during hospitalisation and discharge care.

The compliance measure for AMI implies that all patients need to be included. We are concerned that this is a large undertaking, especially as the other interventions are only required to collect data on up to 20 patients. Can you comment on this?

In the interests of consistency, the AMI compliance measure can be limited to a sample of 'up to 20 patients' as for the other interventions (apart from RRS).

The compliance measure will be understood as:

$$\frac{\text{Number of patients with all components of care}}{\text{Number of patients in the sample}} \times 100 = \text{percentage of compliance.}$$

The sample will be the number of patients audited.

Preventing CVC-related bloodstream infections

The toolkit suggests selecting 'one location for investigation'. What happens when the patient leaves the unit?

This question may relate to both the compliance and the outcome measures.

For the compliance measure; consider the care the patient received while present in the unit. That is, what level of compliance was achieved prior to the patient leaving? Where the unit has complied with every aspect of the care possible to the time of the patient leaving, and documentation reflects this, mark the case as compliant with the care bundle.

For the outcome measure; if the number of patients with CVCs moving to other units represents a significant proportion of the 'population', and adversely affecting sample size, it may be necessary to establish a means of tracking patients. Where the number is not significant it may be simply a matter of excluding them from the sample.

What is the appropriate action when a CVC-BSI is identified? Should all lines be removed?

The Guidelines for the Prevention of Intravascular Catheter-Related Infections recommend that catheters not be removed on the basis of fever alone, and removal of lines when infection is evidenced elsewhere is a matter of clinical judgement².

I understand the maximum sample number is 20 patients. I am unsure if the data is to be collected and entered for the entire month, or is to be a 'day' sample, as it states on page 15 of the toolkit? Do we audit only those patients in our ICU with CVCs on that day?

The confusion may arise from the equation on page 15 of the toolkit that expresses the denominator as "*Number of patient (sic) with CVCs on the day of the sample*". If auditing on one day gives an adequate sample (that is, 20 patients) then a single day may be enough. If it is necessary to audit on a number of days to get a satisfactory sample, then data may be collected across the month.

The denominator could be expressed as "*Number of patients with CVCs on the day(s) of the sample*".

Preventing surgical site infections

Where a surgical patient has two wounds and both are infected, how do we represent this in our data collection?

The emphasis in the toolkits is on the 'number of patients' not the 'number of wound infections'. Therefore, regardless of how many infections a patient may have, for the SSSL outcome measure the patient is only counted once.

Why are we not categorising surgical site infection as superficial, deep, and organ space?

The aim of the SSSL project is to prevent surgical site infections (SSIs) generally. The scope of the project is the collection of general data relating to SSIs. Therefore, the outcome measure for the SSSL project is the number of patients with wound infections, with no emphasis on category. Though infection control surveillance may require sites to categorise surgical site infections, reporting to SSSL will only be aggregated SSIs for the chosen surgical procedure.

Is the denominator for the surgical site infection outcome measure ALL patients in the hospital with surgical wounds?

No! The toolkit suggests that sites choose a specific procedure for review. It may be that smaller sites choose a group of procedures (for example, all laparotomies or all joint replacements). For the outcome measure, the numerator will be the number of audited patients (in the chosen procedure) with a wound infection, and the denominator will be the number of patients audited during the collection period.

For example, during May your site performs 40 laparotomies and you audit 20 of the patients. You find that 2 have wound infections. The outcome measure for May is:

$$\frac{2}{20} \times 100 = 10 \text{ percent of surgical patients have a wound infection}$$

To effectively measure the rate of infections arising from surgery, 30 day surveillance of surgical site is necessary. Why is SSSL not doing this?

Post discharge surveillance is very resource intensive. The scope of the SSSL does not extend to this degree, however sites that are engaged in post discharged surveillance may wish to share their results with other sites during the course of the project.

Preventing ventilator associated complications

Could you comment on the issue of angle of elevation of head of bed in VAC and evidence for 30-40 degrees? It has been suggested there is evidence to support 20 degree elevation.

A recent meta-analysis by Hess concluded that the semi recumbent position was the most effective position for preventing ventilator associated pneumonia (VAP)³. Semi recumbent has been defined as elevation of the head of the bed to 45 degrees⁴. A study by Grap et al published at the same time as Hess suggested that elevation of the head of the bed at <30 degrees did not result in a statistically significant increase in the incidence of VAP⁵.

A most recent prospective multicentred trial tested elevations of 45 degrees and 10 degrees⁶. The authors concluded that elevation of 45 degrees is not feasible, finding the mean elevation for patients nursed at 45 degrees was in fact closer to 30 degrees. The editorial of the publication noted that the trial failed to answer the question of whether a strict semi recumbent position of 45 degrees will significantly decrease VAP⁷.

On this basis the SSSL project continues to recommend elevation of the head of the bed to \geq 30 degrees.

Is it correct that we audit every ventilated patient three times per week?

The toolkit does suggest that audits be performed three times a week for VAC patients. This is suggested because some ICUs may have difficulty gaining an ample sample if audits are not done regularly. On the other hand, the project is not seeking to create a burdensome workload, so sites should determine how frequently they need to audit to establish compliance, and gain an adequate sample.

Implementing a rapid response system

The data collection period is 1-28 Feb, but I note that the RRS data collection is a 2 monthly audit to a maximum of 30 patients. Does that mean that the next data collection period will be in April and the 30 patients need to come from Feb only?

We are suggesting the 2 monthly cycle for RRS data collection begin with March-April. Data submitted at the beginning of March should be considered as 'baseline' and may represent February only or sites can be more retrospective if they desire.

References

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3. Hess DR. Patient Positioning and Ventilator-Associated Pneumonia, Respiratory Care 2005(50);7:892-897.

4. Collard HR, Saint S, and Matthay MA. Prevention of Ventilator-Associated Pneumonia: An Evidence-Based Systematic Review, *Ann Intern Med*. 2003(138): 494-501.
5. Grap MJ, Munro CL, Hummel RS 3rd, et al. Effect of backrest elevation on the development of ventilator-associated pneumonia, *Am J Crit Care* 2005(14); 4:325-32.
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7. Combes A. Backrest elevation for the ' prevention of ventilator-associated pneumonia: Back to the real world? *Am J Crit Care* 2005(14); 4:559-561.