November 2025

Criteria Antibiotic Smart Sweden – Hospitals

The criteria have been developed in dialogue with relevant stakeholders and professionals in the healthcare system and pre-tested in hospitals in different geographical locations in Sweden.

The criteria aim to create commitment, provide inspiration and contribute to systematic improvement in the areas of antibiotic stewardship and infection prevention and control (IPC). By working with the criteria, hospitals can contribute to responsible antibiotic use, fewer infections, reduced spread of infection, and thus a reduced need for antibiotics. Reducing the risks associated with the development and spread of antibiotic resistance is an important part of ensuring patient safety.

In an Antibiotic-Smart Hospital:

- We all take responsibility for using antibiotics responsibly and reducing healthcare-associated infections (HAIs).
- We adopt a patient-centred approach.
- We create conditions for the work through management decisions, adequate resources, and education.
- We build on well-functioning existing practices and implement them broadly in the organization.
- We reduce unnecessary antibiotic use and HAIs by measuring, following up, and providing feedback on results

Organisation and Collaboration

1. The hospital, or the local government structure managing health care, ensures that there are sufficient resources for active antibiotic stewardship and prevention of healthcare-associated infections (HAIs).

Purpose: Hospitals are a high-risk environment for development and spread of antibiotic resistance, which is a risk to patient safety. Adequate resources for antibiotic stewardship and IPC are essential to reduce this risk.

2. The effort to become an Antibiotic Smart Hospital is documented in relevant steering documents.

Purpose: For the work to be successful, a structured approach is required that permeates the hospital’s line organisation and reaches all parts of the hospital.

3. There is an established collaboration between the hospital's antibiotic stewardship group, pharmaceutical unit, infection prevention and control unit, microbiological laboratory, departmental management teams, and hospital management.

Purpose: To ensure that efforts permeate the entire organization, effective coordination and communication among those involved in these issues are essential.

4. The hospital has IT resources and tools to support responsible antibiotic use and monitor healthcare-associated infections.

Purpose: Measuring consumption of antibiotics in hospitals is complex as the risk of errors is high. To follow antibiotic use and prevalence of HAIs and associated risk factors, relevant resources for measurement and tools are needed.

Knowledge and Competence

5. All healthcare personnel receive regular training in basic hygiene routines and other infection prevention measures, at the beginning of the employment and continuously, through the staff members own compliance monitoring.

Purpose: Basic hygiene routines are essential to avoid the spread of infection and healthcare-associated infections.

6. Doctors and nurses receive regular training in antibiotic use.

Responsible antibiotic use means that treatment needs to be adapted based on the individual needs of the patient based on the principle of 'the right antibiotic, at the right time.' In every situation, it is important to strive for the most beneficial treatment from an ecological perspective, without compromising patient safety. This requires increased knowledge and discussion about what responsible antibiotic use entails and what tools that are available.

Working Methods

7. The hospital produces annual status reports for each of the ten points in Strama's 10-point program.

Strama's 10-point program against antibiotic resistance in healthcare has been in place in Sweden since 2010. In order to be able to evaluate and improve the hospital's work with the 10-point program over time, recurring status reports are needed at the hospital level.

Purpose: This criterion serves to identify, prioritize and establish goals for improvement work based on the current situation at the facility. These goals can be short or long-term.

8. The hospital establishes an action plan and sets goals based on the completed assessment for all points in Strama’s 10 point program. To identify, prioritize and set goals for areas of improvement based on the current situation at the hospital. The goals can be both short-term and long-term.

9. The hospital and/or its regional administration establish an action plan based on national guidelines for health care hygiene to prevent health-care associated infections.

Purpose: Approximately a third of all health care acquired injuries are caused by health-care associated infections (HAI). HAI occurs in an individual following diagnostics, treatments or care within a health care facility. HAIs carry a significant cost and lead to extended time for recovery. Infections which require antibiotics contribute to selection and spread of antibiotic resistant bacteria. An action plan to prevent HAIs and infection spread are an important part of the facilities’ comprehensive patient safety work.

10. The hospital carries out quality improvement for responsible antibiotic use, limit spread of infection and reduced numbers of HAIs.

Purpose: Systematic quality improvement to maintain high levels of patient safety is an important aspect of responsible antibiotic use.

Measurements and follow-up

11. The hospital’s clinics carry out recurrent measurements of adherence to basic hygiene routines and guidelines for clothing and IPC self-check.

Purpose: The National Board of Health and Welfare's regulations for basic hygiene in care and nursing apply to all patient-related care work within healthcare. Healthcare hygiene self-monitoring is a tool for assessing healthcare hygiene standards in hospital care. Compliance with both tools is a prerequisite for minimizing the spread of infection in health care.

12. The hospital has a documented structure for measuring, monitoring, and providing feedback on antibiotic use according to the baseline in the National Working Group Strama's National Inpatient Indicators for Antibiotics.

Purpose: Strama has developed a number of indicators for rational antibiotic use in hospitals. The purpose of the indicators is to assist hospitals in improving their antibiotic use by measuring and monitoring in a uniform and effective manner. Compliance with treatment recommendations is an important quality indicator for the services. Furthermore, active feedback of data to the prescribers is necessary.

13. The hospital has a documented structure for measuring, monitoring, and providing feedback on the local resistance situation.

Purpose: Antibiotic resistance in bacteria varies over time, between different locations, and is influenced by local treatment choices as well as the spread of infection. During outbreaks, bacteria with a specific resistance profile can accumulate, which is important to know from a treatment perspective. For patient safety, it is therefore essential that the hospital presents epidemiological resistance data in an easily accessible manner.

14. The hospital has a documented structure for measuring, monitoring, and providing feedback on healthcare-associated infections and risk factors for these.

Purpose: Monitoring healthcare-associated infections is an important part of hospitals' patient safety work. For this to be done systematically, a documented structure for measurement, follow-up, and feedback is required.

Optional Criteria

A. The hospital has a documented structure for measuring, monitoring, and providing feedback on antibiotic use according to the advanced level in the National Inpatient Indicators for Antibiotics.

Purpose: Strama has developed a number of indicators for rational antibiotic use in hospitals. The purpose of the indicators is to assist hospitals in improving their antibiotic use by measuring and monitoring it in a uniform and effective manner. The indicators are divided into baseline and advanced levels. Indicators at the baseline level should be measurable by all hospitals, while indicators at the advanced level are either more specific to the service or require the hospital to analyse patient record data in certain specific ways.

B. The hospital’s clinics have specific operational indicators and goals for antibiotic use and health-care associated infections.

Purpose: Different services have different indications for antibiotic use and risks for various types of healthcare-associated infections. To progress in this work, each clinic needs to work with the indicators that reflect their own operations and set goals for continued efforts.

C. The hospital actively works on communication with healthcare providers, patients, and relatives regarding antibiotic use and healthcare-associated infections.

Purpose: To improve efforts related to antibiotic use and healthcare-associated infections, the hospital needs to actively engage in communication, both with its own staff and with patients and

their relatives. For staff to be able to follow the various recommendations, the hospital must actively work on how information and guidelines can be easily and clearly accessed. A prerequisite for a patient-centred approach is that patients and their relatives have good access to information about antibiotic resistance and healthcare-associated infections, and how they can help reduce them, in accordance with the Swedish Patient Act.

D. The hospital has an effective process for the management of sepsis and serious infections, including a documented structure for following up and providing feedback on the results based on a person-centred and integrated care pathway for sepsis.

Purpose: The management of sepsis and serious infections is an important quality aspect of a hospital that should be monitored while striving to reduce antibiotic use. Follow-up is important but complicated to implement as it requires that the medical record systems are adapted for this purpose.

E. The hospital's clinics are encouraged to participate in research and innovation projects in the area of antibiotic use, healthcare-associated infections, and methods to reduce the spread of infection.
Purpose: Openness to new ways of thinking and working to bridge knowledge gaps and create opportunities for more efficient processes.