

# För alla läkare under hela kariären

## Description of the objectives for doctors' specialty training

The Swedish Medical Association's  
translation into English

## TABLE OF CONTENTS

Validity and area of application of this document .....	3
Glossary of terms.....	4
Infectious Diseases.....	5
Description of skills .....	6
Skills requirements .....	7
Programme structure .....	20

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## Validity and area of application of this document

For information purposes, the Swedish Medical Association (Läkarförbundet) has translated parts of the National Board of Health and Welfare's (Socialstyrelsens) publication "Läkarnas specialiseringstjänstgöring Målbeskrivningar 2015" ISBN 978-91-7555-304-7 into English.

In this publication, the knowledge, skills and approaches that the registered doctor undergoing specialty training (the specialty resident, specialty trainee or "ST-läkare" in Swedish) is to develop during his/her specialty training. The descriptions of the objectives specify a number of learning objectives. Learning objectives a apply to all specialties, learning objectives b apply to many specialties while learning objectives c are specific to each specialty. This English translation is only intended to be regarded as an aid that the Swedish Medical Association provides in applying the descriptions of the objectives for doctors' specialty training. Because the translation is a product from the Swedish Medical Association and not of the National Board of Health and Welfare, the translation is not valid for application as regulations. It is the National Board of Health and Welfare's printed publication describing the regulations and general recommendations that applies.

In this document, the Swedish Medical Association has chosen to translate all learning objectives a and learning objectives b as well as the glossary of terms from the National Board of Health and Welfare's publication. In addition, the specialist skills descriptions and learning objectives c for 27 specialties have been translated, which has been done in consultation with and funded by the Swedish Medical Association's specialty associations and the Swedish Society of Addiction Medicine.

## Glossary of terms

Clinical attachment	Structured programme where the specialty resident observes the professional practice of one or more colleagues and to some extent performs tasks in the area in question
Supervision	Support and guidance in the form of dialogue provided continuously
Supervisor	<p>Specialist doctor who has completed an educational supervisor course and who supervises the specialty resident, and evaluates his or her professional development</p> <p>The supervisor may be the specialty resident's principal supervisor or another doctor with appropriate specialist skills for that training period</p>
Clinical practice under supervision	The specialty resident's clinical practice under his/her own professional liability and with the support of the supervisor
Course	Structured programme based on set educational goals
Quality and development activities	Quality improvement project that the specialty resident carries out, which is part of the healthcare system's systematic quality management
Independent written project based on scientific principles	Written project undertaken in which the specialty resident independently answers a scientific question using evidence based medicine principles
School health service	Medical interventions in student health

## Infectious Diseases

## Description of skills

The specialty of Infectious Diseases is characterised by advanced knowledge in the prevention, investigation, diagnosis, treatment and monitoring of infections from the national and international perspectives. The specialty covers both acute and chronic infections. The specialist doctor in Infectious Diseases acts as a support to other specialties in the case of complex inquiries related to infections.

This skills area also includes advanced knowledge of the care and isolation of patients with communicable diseases, the rational use of antimicrobial therapy, and knowledge of the epidemiology situation. This requires close cooperation with infectious disease prevention and control authorities as well as specialists in Infection Prevention and Control and Clinical Microbiology.

## Skills requirements

For Infectious Diseases, learning objectives a1-a6, b1-b5 and c1-c13 apply.

### Learning objectives a and b

Learning objective a1 Teamwork, leadership and pedagogy	Programme activities	Assessment
The specialist doctor shall: <ul style="list-style-type: none"> <li>– Be able to take responsibility for his/her continuous learning in the workplace</li> <li>– Be able to exercise leadership in his/her daily work, including lead a healthcare team</li> <li>– Be able to take responsibility for the development of multi-professional teamwork</li> <li>– Be able to take responsibility for cooperation with patients and their families**</li> <li>– Be able to work in networks looking after the patient</li> <li>– Be able to collaborate with agencies outside the hospital healthcare system such as social welfare boards, agencies within the social services, schools and Försäkringskassan (the Swedish Social Insurance Agency)</li> <li>– Be able to present and explain medical information in a way that is understandable to the recipient, orally and in writing</li> <li>– Be able to plan and carry out teaching and training</li> <li>– Be able to supervise and instruct colleagues and students</li> </ul>	Clinical practice under supervision	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor
	<b>General recommendations</b>  Participation in intra- or inter-professional reflection in groups  Supervise under supervision  Teach under supervision	

<b>Learning objective a2 Ethics, diversity and equality</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: <ul style="list-style-type: none"> <li>– Demonstrate knowledge and understanding of the principles of medical ethics and be able to identify ethical problems and analyse these in a structured way</li> <li>– Be able to handle conflicts in values in his/her daily work</li> <li>– Be able to treat people as individuals and with respect regardless of gender, transgender identity or expression, ethnic origin, religion or other faith, disability, sexual orientation or age.</li> </ul>	Clinical practice under supervision	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor
	<b>General recommendations</b>  Participation in intra- or inter-professional reflection in groups	

<b>Learning objective a3 Infection Prevention and Control</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: <ul style="list-style-type: none"> <li>– Be able to take responsibility for the prevention and control of healthcare-associated infections</li> </ul>	Clinical practice under supervision	Certificate of completed programme activities and attained the required competencies issued by the supervisor



<b>Learning objective a4</b> <b>Systematic quality and patient safety management</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: <ul style="list-style-type: none"> <li>– Critically examine his/her own practice and be able to conduct a risk and outcome analysis</li> <li>– Be able to take responsibility for systematically implementing measures, processes and procedures to improve patient care</li> <li>– Be able to take responsibility for the integration of new technologies and procedures into his/her daily work as a doctor</li> </ul>	Clinical practice under supervision	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Quality and development work	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	<b>General recommendations</b>  Participation in seminars  Attendance at large professional gatherings	

<b>Learning objective a5</b> <b>Medical science</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: <ul style="list-style-type: none"> <li>– Demonstrate a deeper knowledge and understanding of medical scientific methodology and ethical principles</li> <li>– Be able to critically examine and evaluate medical science information</li> <li>– Demonstrate a scientific evidence based approach to his/her daily way of working and routines</li> </ul>	Clinical practice under supervision	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Independent written work based on scientific methodology	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor
	<b>General recommendations</b>  Participation in seminars  Attendance at large professional gatherings	



<b>Learning objective a6 Legislation and other regulations and the health and medical care system's organisation</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: <ul style="list-style-type: none"><li>- Demonstrate knowledge of the legislation and regulations which govern the healthcare system and its staff</li><li>- Demonstrate knowledge of the health and medical care system's organisation and administration</li><li>- Demonstrate knowledge of the health and medical care system's various financial control systems and their importance for the balancing of priorities in his/her daily work</li></ul>	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor

<b>Learning objective b1 Communication with patients and families</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: <ul style="list-style-type: none"> <li>– Be able to adapt his/her way of communicating based on the patient's and their relatives' individual needs and communication capabilities</li> <li>– Be able to give patients and their families difficult news with respect, empathy and sensitivity</li> <li>– Be able to support the patient's ability to manage a change in life situation as a result of an illness or disability</li> <li>– Be able to consult with patients and their families concerning the patient's self-care</li> </ul>	Clinical practice under supervision	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor
	<b>General recommendations</b>  Participation in intra- or inter-professional reflection in groups  Clinical attachment	

<b>Learning objective b2 Prevention of disease and ill-health</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: <ul style="list-style-type: none"> <li>– Be able to guide patients in matters of lifestyle choices in order to:               <ul style="list-style-type: none"> <li>– Prevent the development of diseases associated with one or more lifestyle habits</li> </ul> </li> <li>– Improve the prognosis in patients with diseases associated with one or more lifestyle habits</li> </ul>	Clinical practice under supervision	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor
	<b>General recommendations</b>  Attendance at large professional gatherings	

<b>Learning objective b3 Medicines</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: <ul style="list-style-type: none"> <li>– Be able to adapt pharmacotherapy to the patient’s age, sex, weight, kidney and liver function as well as any comorbidity and other medication</li> <li>– Be able to assess the risks of interactions and side effects with pharmacotherapy</li> <li>– Be able to work with patients and their families to achieve compliance with medications</li> <li>– Be able to work with other parties in the patient care chain with regard to pharmacotherapy</li> <li>– Be able to critically review and evaluate scientific evidence surrounding pharmacotherapy</li> <li>– Demonstrate knowledge of the environmental impacts of pharmacotherapy</li> <li>– Demonstrate knowledge of the health economics aspects of pharmacotherapy</li> </ul>	Clinical practice under supervision	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained required competencies requirements issued by the course provider or the supervisor

<b>Learning objective b4 Insurance medicine</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: <ul style="list-style-type: none"> <li>– Be able to apply procedures in insurance medicine as part of the treatment of the individual patient</li> <li>– Be able to collaborate on insurance medicine matters relating to the individual patient with actors within and outside the healthcare system</li> </ul>	Clinical practice under supervision	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or supervisor
	<b>General recommendations</b>  Attendance at large professional gatherings	

<b>Learning objective b5</b> <b>Palliative care in the final stages of life</b>	<b>Programme activities</b>	<b>Assessment</b>
<p>The specialist doctor shall:</p> <ul style="list-style-type: none"> <li>– Be able to identify the need for and initiate palliative care in the final stages of life</li> <li>– Be able to hold conversations with patients and their families concerning transiting to palliative care</li> <li>– Be able to apply the fundamental principles of palliative symptom relief with regard to physical, psychological, social and existential needs</li> </ul>	Clinical practice under supervision or alternatively clinical attachment	Certificate of completed programme activities and attained the required competences issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competences issued by the course provider or the supervisor
	<p><b>General recommendations</b></p> <p>Participation in seminars</p> <p>Attendance at large professional gatherings</p> <p>Clinical attachment</p> <p>Training in simulated environment</p>	

### **Learning objectives c**

The specialist doctor is to have the medical expertise necessary to be able to work independently in the area and assist other specialties with expertise on questions related to infections. Medical skills include knowledge of the investigation, diagnosis, treatment, monitoring and prevention of infectious diseases acquired in Sweden as well as abroad. The specialist doctor shall have knowledge of how to manage and prevent infections in patients with increased risk of infection, and master the initial management of acute life-threatening infections.

The specialist doctor shall also have knowledge in microbiology, immunology, epidemiology, healthcare-associated infections, the prevention and control of infections, and the rational use of antimicrobial drugs in view of the problems of resistance.

In addition, the specialist doctor shall be able to manage other diseases that are relevant for the internal medical subject area and be able to initially manage even non-infectious acute life-threatening conditions.

Knowledge of how to individualise treatment with regard to age and other conditions is also required.

<b>Learning objective c1</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: – Master the investigation and treatment of endemic community acquired infections	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor
	<b>General recommendations</b> Participation in seminars Theoretical studies	

<b>Learning objective c2</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: – Be able to manage infections that are acquired abroad – Be cognisant of the global infection panorama	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor
	<b>General recommendations</b> Theoretical studies	

<b>Learning objective c3</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: – Master the initial care of acute life-threatening infections	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	<b>General recommendations</b> Theoretical studies	

<b>Learning objective c4</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: – Master the prevention and control of infections	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	<b>General recommendations</b> Theoretical studies	

<b>Learning objective c5</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: – Master the treatment of infectious agents and have knowledge of resistance in these	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor
	<b>General recommendations</b> Theoretical studies	



<b>Learning objective c6</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: – Master the diagnostic methods for infectious agents and be able to assess the results based on the selected diagnostic method	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	<b>General recommendations</b> Theoretical studies	

<b>Learning objective c7</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: – Be able to manage patients with complex infection inquiries primarily being cared for within another specialty	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	<b>General recommendations</b> Clinical attachment Theoretical studies	

<b>Learning objective c8</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: – Be able to manage patients with an increased risk of infection – Be able to supervise preventive measures for patients with increased risk of infection	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	<b>General recommendations</b> Theoretical studies	

<b>Learning objective c9</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: – Be able to manage patients with healthcare-associated infections, and infections that are complications of interventions	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	<b>General recommendations</b> Theoretical studies	

<b>Learning objective c10</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: – Be able to initially manage acute life-threatening non-infectious conditions	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	<b>General recommendations</b> Theoretical studies	

<b>Learning objective c11</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: – Be able to manage diseases that are relevant for the internal medicine subject area	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	<b>General recommendations</b> Theoretical studies	

<b>Learning objective c12</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: – Be able to manage infections in an individualised way taking into account age and other conditions	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	<b>General recommendations</b> Theoretical studies	

<b>Learning objective c13</b>	<b>Programme activities</b>	<b>Assessment</b>
The specialist doctor shall: – Be able to apply legislation and other regulations applicable to the specialty	Clinical practice under supervision	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor

## **General recommendations**

### **Programme structure**

The Programme in Infectious Diseases should be completed at a unit providing both outpatient and inpatient care for infectious diseases. The aim is for the specialty resident to acquire a comprehensive set of skills. To give the specialty resident the opportunity to acquire advanced knowledge within particular areas or a broader knowledge of general infectious diseases, specialty training may need to be supplemented by a residency at another infectious diseases clinic. During specialty training in a clinical setting, continuous periods at these different residencies should be the preferred option.

During the initial period of the programme, the emphasis should be on the management of common acute infectious diseases. This means the initial management of seriously ill patients as well as being on call. The programme should then continue with advanced ancillary training in other parts of or activities at the unit.

On completion of the programme, the specialty resident should be offered a position as a general infectious diseases consultant in the unit. It is also important that the specialty resident gains insight into specialised medical practice and consultancy activities. Supplementary specialty training abroad can provide valuable knowledge and perspective.

To give the specialty resident the opportunity to deepen his/her knowledge of diagnostic methods and microbiological agents, it is vital that he/she completes an ancillary programme through specialty training in the area of microbiology. Since internal medicine questions commonly arise in this specialty, ancillary training in internal medicine and other internal medicine specialties are greatly important. Specialist medical training in Paediatrics and Intensive Care Medicine would be appropriate, but even other ancillary training programmes could be relevant. Disease prevention and control, and Infection Prevention and Control are examples of other activities which the specialist doctor in Infectious Diseases often comes into contact with, where he/she will require advanced knowledge.

Theoretical studies should be completed in the form of self-study and the clinic's own internal course programmes, where the specialty resident is expected to participate and actively contribute. These courses should include topics such as antimicrobial therapy and tropical diseases. During his/her specialty training period, the specialty resident should have the opportunity to participate in major professional gatherings.