



Training Component Abroad

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Introduction

The training of doctors who will go work in a low resource setting has a long tradition in the Netherlands. This so called “tropical doctor specialization” has made it possible for many Dutch doctors (20 per year) to be well prepared to work in such a setting. They work in places where there is an absolute or relative shortage of doctors providing medical care to the local population that would otherwise be lacking. Increasingly it is acknowledged that the individual doctor and the Dutch healthcare also benefit from the gained experience.

Against this background the training program has been accredited to be an “official specialization program” starting January 2014. The ‘Doctor Global Health and Tropical Medicine’ (AIGT, the Dutch acronym) is now formally recognized by the KNMG, the Royal Dutch Medical Association, the legal body for this in the Netherlands.

The training program is being coordinated, organized and further developed by the training institute Global Health and Tropical Medicine, in Dutch: opleidingsinstituut Internationale Gezondheidszorg en Tropeneeskunde’ (opleidingsinstituut IGT). Based on more than fifty years of knowledge and experience in this field and aimed at the fast changing reality of international and global health.

One of the components of the training program is a 6 months training period in a low resource setting. The institute is in the process of investigating the best suitable settings/ countries for this. In this light we have developed this document; to provide information for possible partners at the locations where these doctors could be trained and work: more background information about the medical training program, the competencies of the resident/AIGT and the training needs of the resident in a low resource setting.

We believe this offers a unique chance to collaborate for mutual benefit. The setting where the doctor would work can greatly benefit from the collaboration as this means a steady supply of doctors to fill up positions where there is a need. The doctors have been well trained to work in a low resource setting and are strongly motivated. Furthermore, doctors often decide to stay longer and could stay for (many) years after the official 6 months of training has ended. From the side of the (resident-) doctor: he/she will be given the chance to finalize his/her training while being exposed to a low resource setting.

The number of residents is determined by the number of positions available. Ideally, a number of 4 – 6 residents would be stationed in one of the organizations.



I. Medical Doctor training program in the Netherlands

Background Medical Doctor Degree

The medical program in the Netherlands is six years in length (bachelor 3 years, master 3 years), competency based education, including practicals in the different fields of medicine. Entree requirements for admission in Medical Schools is a certain level (highest) of Dutch High School Education.

Profile of a Doctor in Global Health and Tropical Medicine

After the Medical Doctor Degree a doctor can choose to specialize in Global Health and Tropical Medicine. There is a selection process that selects doctors with interest in this field of work: proven interest by having done internships in a low resource setting, performed research in the field of IH&TM, organizational skills and preferably working experience in a related field.

The training prepares doctors with the competencies needed to work in an international setting, at the cross roads of clinical care and public health, working for disadvantaged populations in a low resource setting. The AIGT is able to provide ethically sound, evidence based and cost-effective preventive and curative care.

The training curriculum International Health & Tropical Medicine (IH&TM)

Based on an experience of more than 50 years, the training has evolved into a modern curriculum, based on the CanMeds 7 domains of competencies¹. There are 2 different training programs within the curriculum; one with a combination of clinical training in **surgery and obstetrics & gynaecology** and one with a combination of **pediatrics and obstetrics & gynaecology**.

The curriculum consists of 4 components:

- Nine months of clinical training (residential) in surgery, OR in paediatrics AND
- Nine months of clinical training (residential) in obstetrics and gynaecology, AND
- The Diploma course in Tropical Medicine and Hygiene (NTC) at the Royal Tropical Institute (KIT) (also part of the Master International Health), AND
- Six months of clinical training (residential) in a low resource setting.

During the training, including the clinical parts, international priorities in healthcare, clinical care, health promotion and prevention, health systems, intercultural aspects of healthcare, management, governance and advocacy complete the generalist profile of the AIGT.

¹ For more information on the CanMEDS domains or roles please visit:
<http://www.royalcollege.ca/portal/page/portal/rc/canmeds/framework>



II. Competencies of the AIGT (based on CanMEDS)

1. Medical practice

The AIGT has adequate knowledge of health issues and skills required in an international context, allowing him as a generalist to set priorities and make decisions even with scarce resources. He provides up to date, ethical and effective responsible preventive and curative care, for sick people (patients) as well as for healthy people (clients) and for groups in society (target groups).

2. Communication

In his work the AIGT will come across patients, clients or groups in society with a variety of cultural and social norms, values and manners. The AIGT is trained to effectively communicate with patients, family/caregivers, non-professional caregivers, colleagues and broader groups in society to guarantee an optimal level of healthcare.

3. Cooperation

The AIGT participates in a network of functional relations, cooperates with professionals and people with practical training in communities that are involved in (preventive) healthcare and with specialists from other sectors, who can supply a relevant contribution in promoting and protecting health.

4. Knowledge and science

The professional AIGT is characterized by his continuous pursuit to optimize his knowledge and skill in his field. The AIGT can recognize the many scientific aspects of practice and critically look at these, and if necessary, partly on the basis of his own observation and experience, formulate questions for (applied) scientific research. This includes analyzing and interpreting demographic and epidemiologic and social science data and assessing the medical information resources on relevancy for the appropriate field of the AIGT.

5. Social action and prevention

The AIGT has knowledge of social, civil, cultural and political factors that influence diseases and health of individuals as well as groups in society, and also in particular: of geographical and ethnical factors. The AIGT is aware of his responsibility for the (preventive) healthcare at an individual and a community level. The AIGT has knowledge of the relevant legal, social, cultural and political legislation and traditions and works in accordance with his own position and those of patients.

6. Organization

The AIGT operates as an expert in the daily decisions about tasks, policy, staff and means for preventive and curative care. The AIGT is capable of formulating targets and priorities, to delegate effectively and perform systematic reviews of the use of limited resources in healthcare.



7. Professionalism

The AIGT fulfils a special role in the field as a specialist with specific knowledge, expertise and behaviour that is focused on improving healthcare at an individual and community level. He aims for the highest standards in care and ethical behaviour and aims to optimize his own knowledge.

III. Training component abroad: the local program

The AIGT is assessed according to five proficiency levels, namely:

Level	
1	Has knowledge of
2	Treats appropriately under strict supervision
3	Treats appropriately under limited supervision
4	Treats independently
5	Transfers knowledge and skills and teaches during the treatment

During the traineeship in the Netherlands, competencies have been gained up to level 3 in most of the CanMEDS domains, but not yet at the final desired level (mostly 4).

The emphasis of the training of the AIGT in a low resource setting is on involvement in healthcare delivery, both curative and preventive.

Operationalization of the CanMEDS domains for the training component in a low resource setting based on the training program for the resident AIGT :

Theme 1. International priorities and Healthcare

Prior to the training in the low resource setting the resident gains knowledge on the epidemiology of the local and global burden of diseases;

Group 1: infectious and parasitic diseases, maternal and perinatal diseases,

Group 2: non-communicable and chronic and psychological disorders,

Group 3: lesions with or without intent.

The resident applies this knowledge in his/her work during his/her training period abroad.

Theme 2. Clinical care

This theme covers the diagnostics and treatment of common disease and medical conditions, based on theme 1. Special attention will be paid to the assessment and initial treatment of patients that cannot be treated in a first level (basic) hospital. A second important issue is to learn to deal with the limited resources in the hospital and to learn about the consequences of poverty. The resident will



focus on knowledge of common diseases in low resource settings and how to treat them, either conservatively or operatively.

After finishing the traineeship the resident is able to give preventive and curative care for cases with the following pathology:

- Malaria (where endemic)
- Acute respiratory infections, pneumonia
- Tuberculosis-HIV and opportunistic infections (Aids)
- Infectious diarrhoea (gastrointestinal infections), typhoid fever
- Worm infections, Bacteraemia, sepsis, meningitis
- Diabetes Mellitus (explain and introduce therapy)
- Heart and vascular diseases, (decompensatio cordis, hypertension, heart failure, arrhythmias, pulmonary embolism, deep venous thrombosis, acute rheumatism, valvular defects) and explain and introduce therapy
- Common oncological diseases and refer adequately
- Palliative care and pain relief

The resident is able to:

- Work together effectively with other disciplines and refer patients
- Work with nurses and midwives and provide training

Surgery

After finishing the traineeship the resident is able to deal with all those items in table 1, as far as they are part of working in a basic hospital. For residents with the combination Paediatrics and Obstetrics & Gynaecology, this part is not applicable.

The resident acts on applicable trauma protocols (e.g. according to ATLS principles), recognizes complications and is able to treat these adequately.



Table 1. Surgical skills
Perioperative care
Wound care
Treatment of surgical infections
Minor surgery
ATLS
Treatment of poly trauma
Treatment of limb trauma
Treatment of burn wounds
Assessment of an acute abdomen
Treatment of obstruction upper GI
Treatment of obstruction lower GI
Surgical treatment of hernia inguinalis
Treatment of skin tumour
Skin flaps and SSG

Paediatrics

During the traineeship the resident will develop general paediatric competences. For residents with the combination Surgery and Obstetrics & Gynaecology this part is also applicable, but the level of competence to be reached is not as high as with the combination with Paediatrics (mostly at level 2-3).

After finishing the traineeship the resident is able to:

- Stimulate mother-child bonding
- Resuscitation of newborn and neonatal care
- Recognize and initiate therapy when needed and/or possible delays in developmental stages of children and delayed mile stones, by example cerebral palsy, (physiotherapy and occupational therapist)
- Supervise vaccination programs including schedule and protocols,
- Diagnose and treat when needed and design (public health) programs for preventable infectious diseases, outbreaks, and can handle challenges with implementation
- Advise on nutrition and hygiene; prevention and treatment of malnutrition
- Manage critically ill children and common diseases and health problems, by example dehydration, gastroenteritis, respiratory infections, sepsis, meningitis, helminthiasis, bilharzia, HIV, TB, malaria,



- social and psychological problems including drug use in adolescents
- Insert IV line, bone needle, lumbar puncture
 - Interpret chest X-ray
 - Diagnose common surgical problems in children and knowledge of treatments: trauma, brain injury, fractures, appendicitis, volvulus, tortio testis, etc.

Obstetrics and Gynaecology

During the traineeship the resident will be further trained on perinatal care of mother and child, including treatment and prevention of HIV infections, the normal and pathologic delivery, sexually transmitted diseases and prevention, screening and treatment of cervix carcinoma.

After finishing the traineeship the resident is able to:

Obstetrics

- Handle preconception counselling, birth control included
- Provide guidance to normal and pathological pregnancies
- Counsel and guide during a pathological pregnancy
- Professionally guide a delivery using the partogram and to interpret this correctly
- Adequately handle frequently occurring complications during delivery (including: vacuum/forceps extraction, perineal/sphincter repair and caesarean sections)
- Give guidance in the physiological postpartum period
- Professionally guide a healthy newborn
- Recognize pathology in the postpartum period
- Recognize pathology of the newborn and start treatment
- Apply knowledge about breastfeeding and medication in practice

Gynaecology

- Outpatient clinic: give preventive and curative care of STI, counselling of (in-)fertility, recognizing and adequate referral of oncology and vesico- and rectovaginal fistulas
- Operative procedures: curettage, biopsies, adnex operations, hysterectomy, BTL, ectopic pregnancy, caesarean sections and deal with complications of caesarean sections during the operation

Theme 3. Health promotion, protection and prevention

This theme concentrates on public health in a broad sense; the importance of getting knowledge of the determinants of health in the particular setting, like housing, water supply and sanitation, etc. There is emphasis on screening, vaccination and collective prevention.

After finishing the traineeship the resident is able to:

- Comprehend the 'determinants of health' of the particular setting (i.e. socio economic)
- Comprehend the existing health prevention programs in the area
- Master immunization schedules for children
- Diagnose if a child has a normal psychomotor development and can treat common causes of defects or refer
- Recognize and treat a calorie malnourished / deficiency diseases child
- Adequately conduct proceedings at screening, individual health protection, vaccination of clients



and groups of clients

- Adequately plan, implement and evaluate interventions in the field of prevention on population level

Theme 4. Healthcare systems

After finishing the traineeship the resident is able to:

- Comprehend the functioning of the healthcare system in the particular setting
- Correctly follow procedures with official communications and reports inside the system of healthcare

Theme 5. Intercultural aspects of medical care

The learning objectives of Theme 5 are an integral part of daily activities. Moreover, visits to natural healers, primary healthcare, community outreach (the 'mobile clinic') and involvement in school health (where possible) will be part of the traineeship.

After finishing the traineeship the resident will:

- Have knowledge of the cultural belief systems and practices in the community
- Have consultations with patients and their family and give health education and advice that is appropriate in the context
- Communicate through interpreters and translators
- Lead group discussions
- Show respect for the variety in cultural and social norms, values and behaviour

Theme 6. Management

Theme 6 will be covered by the superintendent and the administrator of the hospital as part of the general introduction in the hospital. The trainee will be exposed to management and administration.

After finishing the traineeship the resident is able to:

- Manage scarce resources
- Initiate, organize and direct quality control and assurance
- Use the principles of data collection and data analysis at the level of the institution, district, regional or national level
- Comprehend the local healthcare organization; patient flows, organizational structures, HR, finance etc.
- Will be able to work together with all staff working in the organization

Theme 7. Advocacy

During the traineeship the trainee will be in contact with several organizations that are active in the setting, like NGO's or other organizations that can help to improve the healthcare in the particular setting.

After finishing the traineeship the resident is able to:

- Communicate with different organizations, organize and participate in meetings



Supervision, formative and summative assessment

The resident will be evaluated in the low resource setting by the medical doctor that is the supervisor, using assessment forms. Furthermore the resident will need to complete other assessment forms as used during the Netherlands training program. Formative assessment tools that are used include the (mini) Clinical Evaluation Exercise (CEX), Objective Structured Assessment Technical Skill (OSATS), Critical Appraisal Topic (CAT) and Public health exercise. Summative assessments take place after 3 months and at the end of the training period. For more details see 'Assessment & Portfolio Guide' that gives a full overview of all the formative and summative assessment tools including the minimal requirements for the training component abroad.