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HELP – Healthcare Logistics Education and Learning Pathway

National Report of Healthcare Logistics in Estonia

Tallinn Health Care College

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1. Introduction

The health care system and its developments are affected by changes in the society. The population is ageing, shrinking, and moving. As a result of increased health awareness and improvement in diagnostics and the overall standard of living, the number of appeals made to health service providers is increasing, as are the expectations of the people. Higher demands are placed on the availability, quality, and safety of health services as well as on the staff, whereas financial resources are always limited.

2. A brief overview of the healthcare system of Estonia

Estonia's health system benefits from strict separation of functions with the main actors being the Ministry of Social Affairs and its agencies, the Estonian Health Insurance Fund, and independent provider units operating under private law (so-called autotomized units). The Ministry of Social Affairs is also responsible for financing emergency care for the uninsured, as well as ambulance services and public health programs. Both the Ministry of Social Affairs and local governments finance social care.

Secondary and tertiary care is provided in hospitals and outpatient centres. There are currently about 65 public and private hospitals in Estonia, including 35 nursing and rehabilitation hospitals.

The majority of ambulatory specialist care is provided in hospital outpatient departments, with the remainder provided by health centres or specialists practicing independently. Day care, which is defined as treatment requiring at least a four-hour stay without the need for the patient to stay overnight, is provided by hospitals and ambulatory care providers with a day-care license. Rehabilitation care (inpatient and outpatient) is provided by licensed hospitals. Rehabilitation care is seen as an inseparable part of specialized medical care in Estonia, and includes services that focus on restoring impaired functions, preserving restored functions or adjusting to disability. Finally, nursing care services are delivered either in licensed nursing care institutions (hospitals) or in patient's homes. The nursing care services financed by the EHIF include inpatient nursing care and home nursing (including home care for cancer patients).

2.1 Health policy and legislative framework

The Ministry of Social Affairs and its agencies perform the main stewardship role for the Estonian health care system, including the development of national health care policies and legislation, supervision of compliance with legal acts, collection and analysis of data on activity volumes and economic indicators of providers, as well as registration of health care professionals and licensing of facilities.
Strategic documents:
1. Health Insurance Act
2. Health Services Organisation Act
3. National Health Plan 2009–2020

2.2 Organisational structure and delivery of services

The national health insurance scheme covers approximately 95% of the population with a broad range of curative and preventive services as well as some monetary

benefits. Revenues stem primarily from earnings-based employer and employee contributions, in addition to state contributions for certain population groups.

Health Insurance

In Estonia is in force a solidary health insurance system. Solidarity in health insurance means that someone's health insurance payments or contribution to the system or access to the necessary assistance does not depend on age, income or health risks. All the medically insured people in Estonia are entitled to the same quality health care, regardless of whether or not they pay the health insurance tax.

Health insurance payments are made by the majority of the working age population, and from the social tax payable from the gross salary of a working person the treatment services also to the population groups in society who currently are not making insurance payments are compensated for. This group includes children (under 19 years of age), seniors and mothers raising small children at home, also the unemployed and pregnant women. Today's working age people use the services relatively little, but health insurance payments paid from their gross wages also cover the health care costs of children and the elderly family members of the taxpayers. Also, today's working-age people will use health care services in the future when they can no longer contribute to the system. The existing funds are used on an ongoing basis to treat all people in need; no one has a personal account.

An insured person is a permanent resident of the Republic of Estonia or a person living in Estonia by virtue of a temporary residence permit or by the right of permanent residence, who pays the social tax for himself/herself or for whom the payer of social tax is required to pay social tax.

Benefits

The EHIF provides many monetary benefits for the insured individual such as incapacity to work benefits, supplementary pharmaceutical benefits, dental care benefits, and artificial insemination benefits.

The temporary incapacity to work benefit is paid on the basis on of a certificate of incapacity to work to an insured person, who because of a temporary incapacity to work does not pay the social income tax. Temporary incapacity to work benefit subcategories are:

Sickness benefit is a benefit which is paid on the basis of a certificate of incapacity to work to an insured person, who is temporary leave from work. The sickness benefit can apply in the case of falling ill, work accident, traffic accident, or domestic injury.

Carer’s allowance: A benefit which is paid to the insured person, who has an ailing child or family member.

Maternity benefit: A benefit which is payed to the insured woman on pregnancy or maternity leave.

Adoption benefit: A benefit which is paid to the insured person on the adoption of a child under 10 years of age.

The dental care benefit is a monetary benefit payed to pensioners, to those on the basis of the operational support law of partial or no work capacity, to individuals over the age of 63, to the pregnant, to mothers with children under the age of 1, and to individual who as a result of provided medical service has developed a heightened need to receive dental care services.

The denture benefit is a benefit payed to insured individuals over the age of 63, to those on the basis of the operational support law of partial or no work capacity, old-age pensioners, and no work capacity pensioners.

The supplemental pharmaceutical benefit is a benefit which is paid in addition to savings received at the pharmacy. The supplemental pharmaceutical benefit is paid in the case when the benefit paying conditions are met.

The artificial insemination related pharmaceutical benefit is payed to cover in vitro fertilization and/or embryo transfer procedures and the expenses of related pharmaceuticals.

2.2.1 Governmental healthcare system

Most hospitals are either limited liability companies owned by local governments or foundations established by the state, municipalities or other public agencies. The remaining few are privately owned.

2.2.2 Regional healthcare system

Primary health care is a set of ambulatory services for the most common health problems available to people based on their work, school or place of residence. Primary health care is provided by family doctors together with family nurses and other supporting specialists.

Primary health care is organised by the Health Board, who ensures its consistent functioning, effectivity, and the use of human resources. In case of a health concern, a person’s first contact with the health system is a family doctor or family nurse.

Outside the office hours of a family doctor, a person can call the family doctor’s advice line at 1220. By calling the advice line, people can get help for minor health problems, instructions for first aid, and if necessary, answers to questions about the organisation of health care.

All residents have the right to choose their family doctors. In case a person does not do that, they are appointed a family doctor by the Health Board based on their permanent residence. In case a person is not satisfied with their family doctor or in case of change or residence, a person may change family doctor.

Since 3 March 2017, newborns are automatically added to the list of the family doctor of their mother. Hence, it is not necessary to submit a separate application to have a newborn added to the list of a family doctor. In case a person does not want to add their child to the list of their family doctor, an application must be submitted; further information is available on the website of the Health Board.

The replacement system of family doctors and family nurses is organised by the Health Board. The aim of this is to ensure the availability of general medical care in

case a family doctor has not been found by way of competition for people in a practice list without a family doctor. Information about the terms and conditions of participating in the replacement system and the replacement fee is provided by the Health Board.

2.2.3 Municipal healthcare system

In general health care system is financed from the Health Insurance Fund, which has its own budget. Local municipality only assist to provide primarily health care. The main task of local municipality is to organise the cure of insured people and to compensate their treatment costs. Often the hospital providing care are also property of local municipalities.

But local municipalities are responsible for social aid and welfare of elderly people, disabled people inc. home care. Local municipality is responsible for paying subsidies. In addition local municipality pays also other social benefits, arranges emergency care.

2.2.4 Private healthcare system

All health care providers are independent entities operating under private law. Family physicians operate as private entrepreneurs or salaried employees of private companies owned by family doctors or local municipalities. Family physicians serve as the first level of contact and gate-keeper of the system (a gatekeeper is a health care professional - usually a primary care physician - who coordinates, manages, and authorizes all health services provided to a person covered by a certain health (insurance plan). There are currently about 800 family physician practices in Estonia, and while there has been a growing trend towards group practices, approximately 70% of family physicians continue to work in solo practices. Family physicians are responsible for providing a core package of services to their self-selected constituencies (individuals registering with them under a practice list-system). Each family physician's practice list cannot contain more than 2000 patients or less than 1200 patients. All together, these practice lists cover the entire population. In addition, family doctors and nurses provide more than half of all ambulatory care visits, while ambulatory specialists deliver the remainder of these visits.

2.2.5 Occupational healthcare system

2.3 Future of healthcare system

The strategic plan for health care system is described in National Health Plan 2009–2020

General objective of the strategic field – by 2020, the health-adjusted life expectancy has extended to 60 years in average for men and 65 years in average for women, and the average life expectancy has extended to 75 years for men and to 84 years for women.

However in addition to changes individuals' health there has been planned also changes in the whole system. Today the most actual problem in Estonian health and social system is that there is no connection between different systems and organisations. When a person gets into health or social care system then she/ he will soon be alone. There is no coherence between systems. Therefore there are plans to change the primary health care system. The main coordinator for patients/ clients will

be health centres that in the future will encompass different occupations from different fields. And the main coordinator at the centre will be a person who might have the competences of a logistics.

The health centres will encompass also services like physiotherapy, pharmacist service, social workers and the health services that are not offered by a physician or a nurse. Therefore all these services that are not listed at Health Care Services Act as health services are also united into future Health Centres with the aim to help clients/ patients to move between different systems.

So the future health centres will encompass:

- Family doctors. In sparsely populated areas there will also remain smaller praxis next to Health centres.
- Physiotherapy service will be one service offered by general practitioner. This will help to provide better accessibility of rehabilitation.
- Home nurse service.
- Midwifery. This also includes preventive services, counselling services, prescription of medicine. The midwifery service at health centres will reduce pressure on specialists, and improves the accessibility of reproductive health services.
- School health.
- Counselling and other services.
- Social services.

3. **Healthcare logistics**

There is no such profession as a healthcare logistics. Logistics issues are dealt by various professions and it differs from organization to organization.

Here we will present two examples to illustrate how logistic issues are settled in health care and social care.

For example in the biggest hospital in Estonia – North Estonian Medical Centre there logistic issues (but not all) are dealt by so called assistants. These personnel have no medical background.

The main objectives of the assistants are to arrange administrative business and information flow between departments and other structural units.

His/ her tasks are as follows:

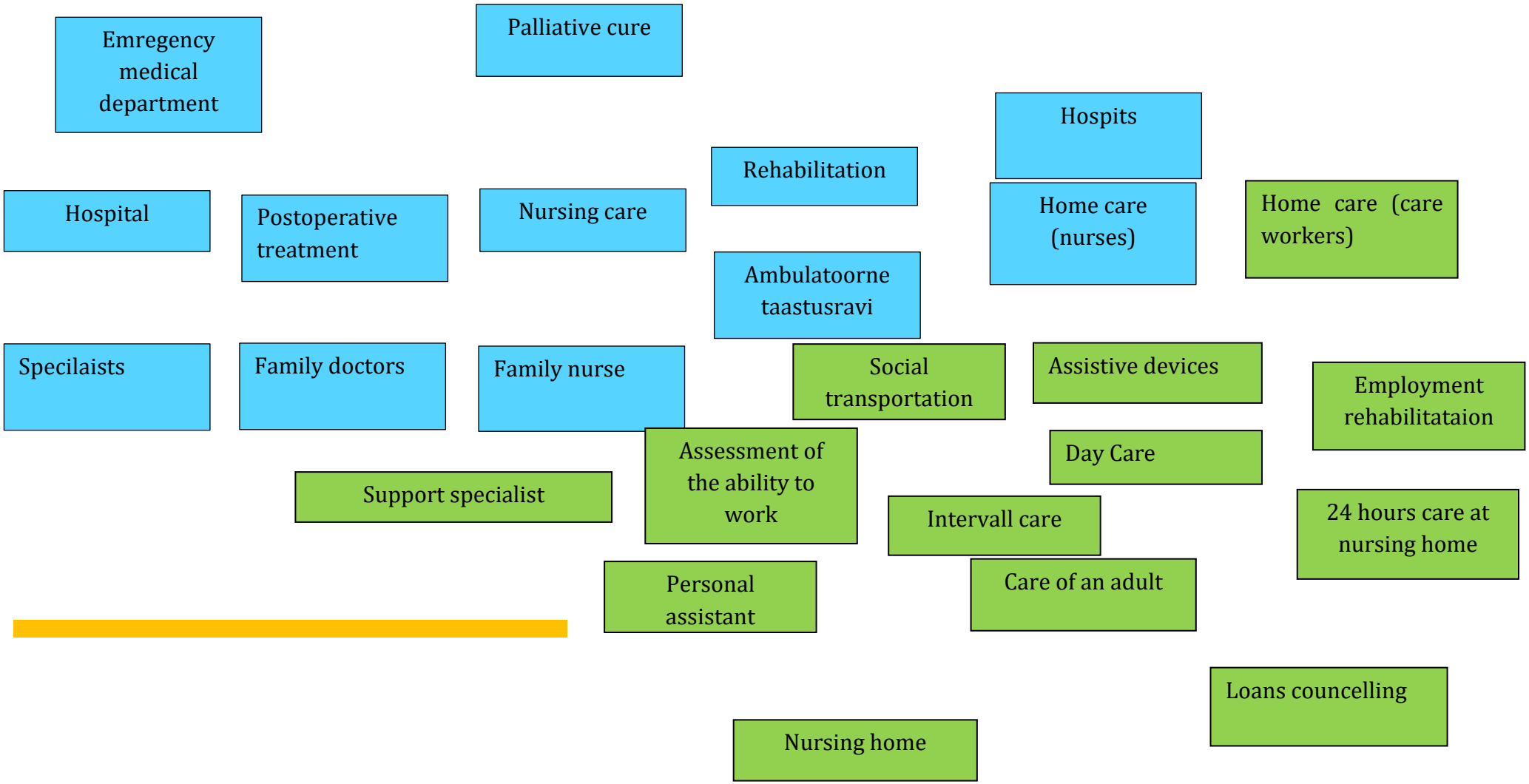
1. Studies the needs of a patient in order to arrange her/ his everyday procedures and arranges required help.
2. Guides the persons visiting the Medical centre and gives them non-medical information. In case of medical information needed, the assistant guides the person to respective specialist.
3. Answers the phone. In case of need transfers calls to doctors, send respective information to person involved (doctors, nurses, care workers etc).
4. At the beginning of the day checks together with the nurse in charge the day schedule (procedures, transportation to operations/ computer etc), and follows the fulfilment of the schedule.
5. By doctors' order invites patients on cure list to hospital (calls them), records the patient to procedure/ survey.
6. Coordinates the patient´s transportation to the surveys.

7. By the order of a doctor/ nurse arranges specialists consultations to patients on stationary care.
8. Enters electronically data of doctor's consultations.
9. Arranges patient´s transportation between hospitals/ clinics.
10. Prints menus and passes theses menus to care workers for feedback.
10. Orders the lunch and dinner for the patient from hospitals information system according to the doctor's order. Orders additional food for the patient by the request of the doctor.
11. Records and coordinates the patients flow inside and between departments into hospitals information system.
12. Informs the secretary about the patients leaving department.
13. If there is no secretary the assistant compiles invoices for the hospital stay and sends the invoices to the patient.
14. Prepares the formats for the patients care plans.
15. Keep an eye on the instruments needed at the department.
16. By the request of a doctor sends the copies of a foreign patient to the secretary.
17. Arranges the patient´s transportation outside the hospital (between clinics, to an other hospital, to home, nursing home etc).
18. In case of patient´s death, arranges transportation.

So the assistant job involves mainly everything that is not connected with medicine.

The assistant is under the jurisdiction of head doctor, and not under head nurse.

The next example shows all agencies existing in Estonia, but there are now arrows, because the system has no connection between each other. The green ones shows institutions under social care and blue ones under Health care.


Emregency medical department
Palliative cure
Hospits
Rehabilitation
Hospital
Postoperative treatment
Nursing care
Home care (nurses)
Home care (care workers)
Ambulatoorne taastusravi
Specilaists
Family doctors
Family nurse
Social transportation
Assistive devices
Employment rehabilitataion
Assessment of the ability to work
Day Care
Support specialist
Intervall care
24 hours care at nursing home
Personal assistant
Care of an adult
Loans councelling
Nursing home

3.4 Example on healthcare logistics in a public sector organisation (how logistics is organised and managed, different tasks in the organisation)

1. Background

Tiiu, 76 years old stumbled at home and broke her hipbone. Tiiu lives alone, her husband is dead and she has no children or grandchildren. Her other relatives are old and they mainly communicate via phone. She lives on the fifth floor in a house without elevator.

After falling she could not reach the phone and she started calling help hoping that some neighbour might hear her. Finally neighbour called an Ambulance. The door was broken down and ambulance took Tiiu to hospital. After operation Tiiu stayed at hospital for fifteen days.

After that the social worker arranges Tiiu´s stay at care department, where she stayed 2,5 months. And finally she was ten days at rehabilitation centre where physiotherapists worked with her.

Meanwhile the social worker supplied her apartment with assistive devices, and e-services – emergency button and arranged home care services.

But now new problems cropped up: being independent she has problems to accept isolation. She is not used to be care taker. This new situation caused depression and anxiety. Thanks to the social worker, Tiiu was accompanied by local volunteers.

2. Analyses. Risk factors

1. Safety risks at home were not assessed. There were carpets on the floors, cords were everywhere, and flower pots hampered free movement. Tiiu mentioned that she has stumbled at the carpet also before but she has not thought to remove it, because the carpet has been there for forty years.
2. Physical environment was an obstacle: the house has no elevator; she lives on the fifth floor. So she could not go out independently, all this caused isolation. The living room was not designed for moving with assistive devices. The washing conditions were not adequate.
3. There was no procedure how to get help. Tiiu has a mobile phone, but when she fell, the phone was in another room. She has no contact person and she has not given her keys to another person.
4. Inadequate co-operation between health care and social care system: databases are not linked. The movement of the patient was not followed. There was no logical links between arranging necessary services for Tiiu: postoperative treatment, physiotherapy, home care services. There were also problems in information flow. There was a risk that the client will remain without necessary help.
5. There is no link between healthcare system and social care system to provide services.

3. Analyses. Defence factors

1. All safety risks at home are assessed. As prevention work there should have removed all carpets, furniture that hindered movement, there should have been assessed slippery floors at bathroom and checked the existence of hand rests. The regional care worker visits regularly the elderly people living alone and her task is to inform these people about risk factors and services available.
2. Suitable physical environment was designed. In co-operation with local municipality and Vocational rehabilitation centre Astangu Tiiu was provided with shower instead of a bath, hand rests were put were necessary, and thresholds were removed. The financing came from on Project. However the problem of her isolation still remains because she does not want to move to a more suitable flat on lower floor.
3. Social security system was installed. In cooperation with Tallinn Health Care Centre there was installed an emergency button, which enables to call help immediately. Tiiu also gave extra keys to her neighbour. And additional falling detector was also installed at her flat.
4. There were problems between co-operations between different systems. The co-operation exists but needs additional development. It is not right that the work was done due to some people’s good will. The logistical activities should be connected between two sectors. In ideal world the family doctor could see information about her patient´s hospitalisation in her database, the social care worker could see information about her clients health status and information about necessary help.

3.5 Example of healthcare logistics in a private sector organisation (how logistics is organised and managed, different logistics tasks in the organisation)

3.6 Future of Healthcare logistics
(What are the future trends, drivers and signals of wellbeing and healthcare logistics, how will the future supply chain / webs be alike?)
Here you may describe your country specific systems (such as how physical infrastructure and processes are generally organized and controlled, how information and data sharing processes are controlled) in relations to healthcare institutions, if this information is available.

4. Competence needs in healthcare logistics

Organise workshops with different healthcare sector organisations (public and/ or private) and / or healthcare logistics service providers to identify competence needs of different logistics tasks at managerial and operational levels related to inbound logistics, in-house logistics and external logistics.

Please list your target group organizations to Reppu Wiki per country.
Competence framework and instructions are found at Reppu under WP3 section.

5. Conclusions

Ideas for healthcare logistics education development.

References

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