

The Principles of Surgical Care Transformation in Lithuania

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Prerequisites for optimization

- The spectrum of in-hospital surgical care is based on **traditional modes of hospital activities;**
- **Average bed occupancy rate** presents a relatively straightforward parameter of efficiency of hospital in-patient operations;
- **Average length of hospital stay** – a very potent though very sensitive lever to influence and improve hospital efficiency.

Prerequisites for optimization

- Inpatient activities represent substantial potential for gradual shift towards more efficient service delivery models:
 - Day surgery/short stay surgery;
- According to **National Health Insurance Fund** in 2013m.:
 - ✓ Only 35% of day surgery procedures were performed on the day of hospitalization;
 - ✓ In 15% of cases – later than the next day after hospitalization.
- Providing day surgery services within the Departments of Surgery delays are possible due to:
 - emergency cases;
 - overload of operating theatres;
 - inadequate infrastructure.

Principles of optimization

- Gradual decrease of in-patient cases;
- Development of Day Surgery centres utilizing facilities of regional (smaller) hospitals.
- *Concentration of complex/specialized care at the tertiary referral centres.*

Principles of optimization

- The assumption could be made that a gradual decrease in inpatient cases could have a beneficial effects:
 - ✓ transition towards more effective service delivery modes;
 - ✓ improvement of efficiency and quality of services;
 - ✓ positive effect on cost per case.

Principles of optimization

- Functional parameters of hospital beds do not fully reflect the quality of surgical care.
- Additional quality parameters should be applied:
 - ✓ **Spectrum of surgical services;**
 - ✓ **Volume of surgical activities.**

Sources of Information

- Statistics Lithuania;
- Health Information Centre, Institute of Hygiene,;
- National Health Insurance Fund

Hospital Beds in 2012

	Overall	per 10,000 inhabitants
Inhospital beds (including palliative care)	27,079	91.12
Surgical inhospital beds	3,311 (14,9%)	11.1

- Number of Surgical in hospital cases – 47,041;
- Only 14 patients per 1 bed during a year !

Conclusion- Excessive number of in-hospital beds for surgical patients!

Surgical Operations in 2012

- Overall 64,955 operations in General Surgery/ Abdominal Surgery patients were performed.
- Only 19 operations per one bed patients per year!
- Conclusion-
The most ineffective use of in hospital Surgical beds

Human Resources

Physicians 2012

	overall	Per 10,000 inhabitants
Overall	13552	45,60
Practicing	12604	42,41

Surgeons 2012

	Surgeons	Paediatric surgeons
Overall	860	64
Per 10,000 inhabitants	2,9	0,2

There is no lack surgeons

Surgeons are not overloaded

(70 interventions per surgeon per year)

Distribution of Surgeons in regions

Region	Surgeons
Pagėgių sav., Kauno r. sav., Šiaulių r. sav.	1
Kupiškio r., Akmenės r., Širvintų r.sav.	2
Palangos m., Panevėžio r. sav., Pakruojo r. sav., Šilalės r. sav., Ignalinos r. sav.	3
Varėnos r., Zarasų r., Elektrėnų sav.	4
Kaišiadorių r. sav., Prienų r. sav., Klaipėdos r. sav., Kretingos r. sav., Molėtų r. sav., Šalčininkų r. sav., Švenčionių r. sav., Kelmės r. sav., Vilniaus r. sav.	5

Distribution of Surgeons

Lazdijų r. sav., Biržų r. sav., Pasvalio r. sav., Anykščių r. sav.	7
Kėdainių r. sav., Jonavos r. sav., Rokiškio r. sav., Joniškio r. sav., Radviliškio r. sav., Trakų r. sav.	8
Šakių r. sav., Druskininkų sav., Šakių r. sav., Jurbarko r. sav.	9
Vilkaviškio r. sav., Raseinių r. sav., Plungės r. sav.	10
Tauragės r. sav.	11
Visagino sav., Ukmergės r. sav.	12
Šilutės r. sav.	13
Mažeikių r. sav., Telšių r. sav.	14
Marijampolės sav.	15
Utenos r. sav.	17

Distribution of Surgeons

Alytaus m. sav.	22
Tauragės apskritis	24
Marijampolės apskritis	34
Telšių apskritis	38
Alytaus apskritis	42
Utenos apskritis	48
Šiaulių m. sav.	57
Panevėžio m. sav.	62
Šiaulių apskritis	84
Panevėžio apskritis	89
Klaipėdos m. sav.	136
Klaipėdos apskritis	162
Kauno m. sav.	243
Kauno apskritis	281
Vilniaus m. sav.	384
Vilniaus apskritis	425

Disproportions of distribution of surgeons

- 44% of surgeons are located in Vilnius city;
- Less than 5 surgeons in 5 municipalities;
- Disproportion of distribution results in relative lack of surgeons in some regions of Lithuania.
- Disproportionate distribution of surgeons creates breaches for reaching sufficient volume of surgical activity ensuring qualification of staff and quality of surgical care

Stratification of Hospitals According to Surgical Activity

✓ Group 1: ≥ 500 surgical interventions;

✓ Group 2: 300 – 500,

✓ Group 3: < 300

Group 1

≥ 500 surgical interventions

- Presumption: these hospitals are functioning efficiently
- Possible all spectrum of surgical care:
 - ✓ Specialized (non-oncology) surgery;
 - ✓ Day surgery;
 - ✓ Outpatient surgery;
 - ✓ Emergency surgery.

Group 2

300 - 500 surgical interventions

- Possible spectrum of surgical care:
 - ✓ Day surgery;
 - ✓ Outpatient surgery;
 - ✓
 - ✓ **Management of emergency cases**
 - ✓ Ensuring urgent care;
 - ✓ Stabilizing and maintaining vital functions;
 - ✓ Transportation to higher level hospital

Group 3

< 300 surgical interventions

- In hospital surgery is irrational economically – inadequate ratio of expenses for human-power and surgical facilities to number of surgical procedures performed;
- In such circumstances surgical care usually is of poor quality and unsafe.
- Proposed possible spectrum of surgical care:
 - ✓ **Outpatient surgery;**
 - ✓ **Management of emergency cases:**
 - ✓ Primary diagnosis;
 - ✓ Stabilizing and maintaining vital functions;
 - ✓ Transportation to higher level hospital.

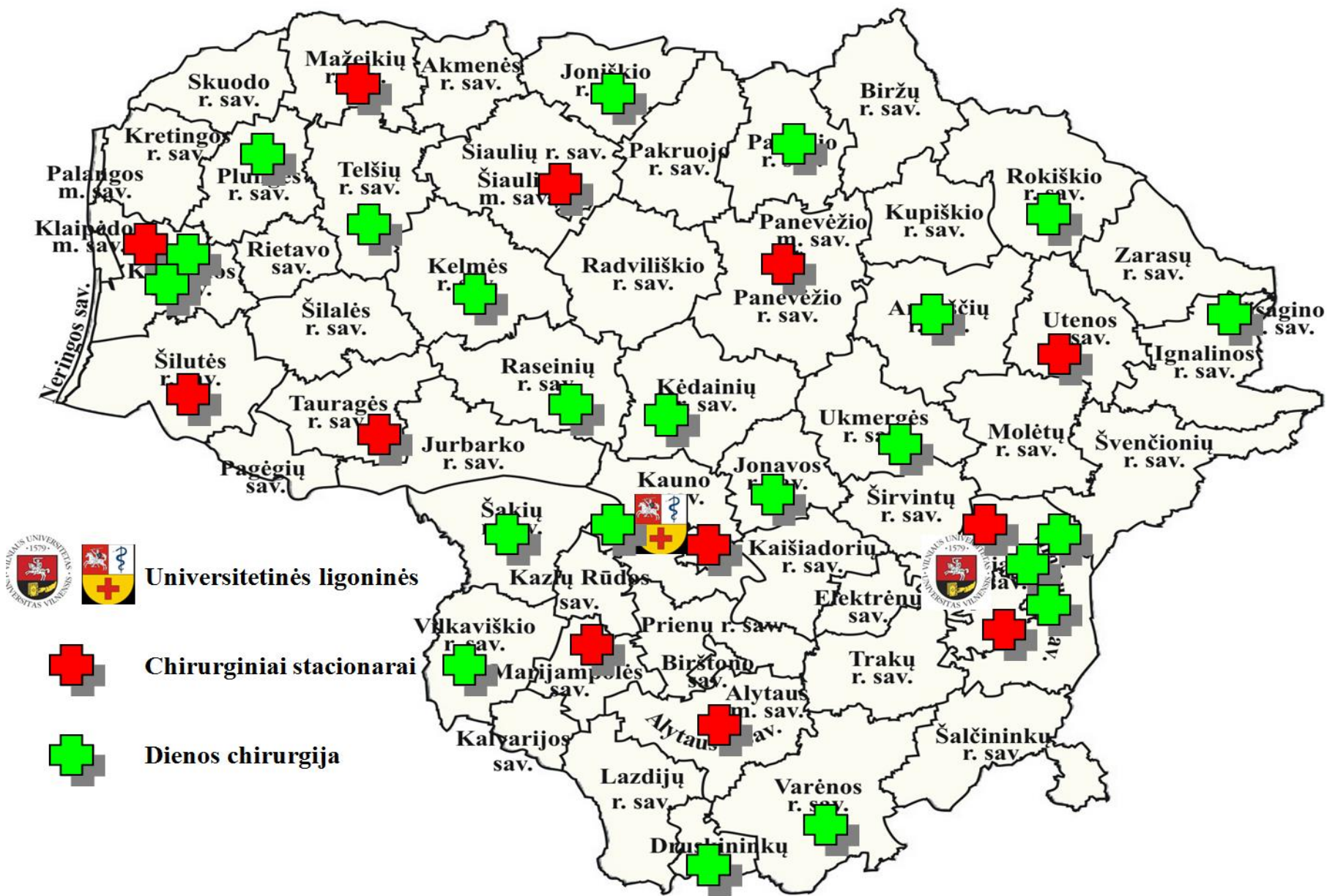
Development of Day Surgery Centres

- Reorganisation of sub-optimally functioning in-hospital departments with establishment of Day Surgery units;
- Gradual increase of activities of Day surgery units
- Increased use of day surgery service should increase accessibility of hospital care:
 - Despite decrease of acute inpatient hospital capacities day service modality enables shifting of substantial number of standard procedures to day surgery procedures.
- Economical benefit:
 - No need to buy expensive and sophisticated diagnostic and OR equipment;
 - No need to employ expensive and under-loaded professionals.

Distribution of Surgical and Day Care Centers in Lithuania

- Planning distribution of specialized Departments of Surgery and Day Surgery centers several conditions should be taken into consideration:
 - Even distribution according to location and transportation services;
 - Human resources;
 - Available facilities, equipment, etc.

Map of Surgical and Day Care Centers in Lithuania



Tasks to Ensure Qualified Emergency Care

Reduction of in-hospital surgical services may decrease quality and non-stop availability of emergency care;

To ensure well-timed emergency care and surgery we need:

- Upgrade diagnostic and therapeutical abilities of general practitioners, providing emergency services;
- To ensure reasoned and timely transportation of patients to and from in-hospital Departments of Surgery.

HM Actions to Ensure Qualified Emergency Care

- To commission Vilnius and Kaunas Universities to create special updating programs in Surgical pathology for general practitioners, family physicians, emergency room physicians;
- To settle financing to implement the aforementioned programs, first of all in regions where inhospital surgery services will be terminated;
- To expand trainings in “Advanced Trauma Life Support” (ATLS) for wide range of physicians (not only surgeons);
- To organize adequate and efficient system for patient transportation, using financial resources