



Vaše jistota na trhu IT

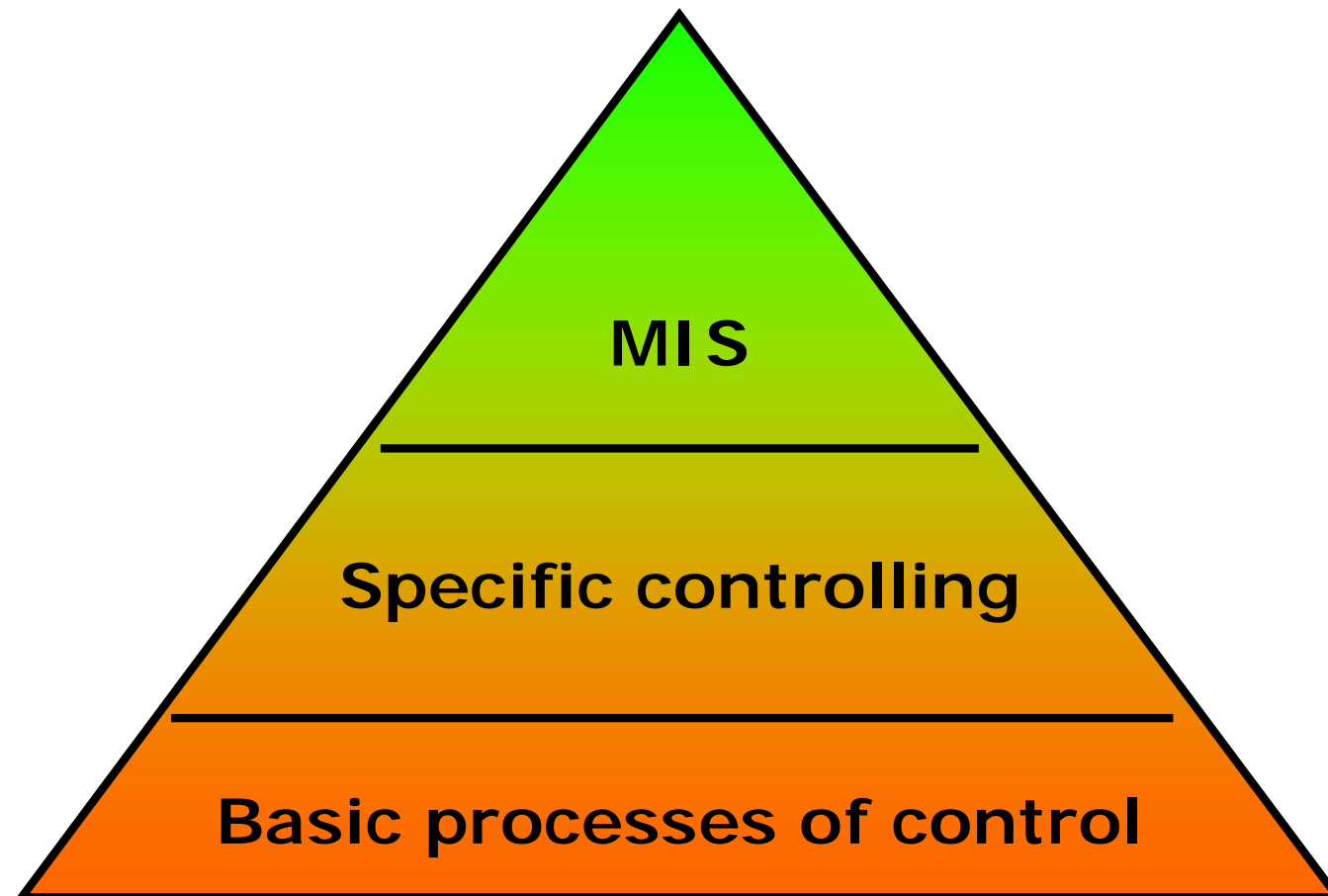
# Business Intelligence (BI)

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Plzeň

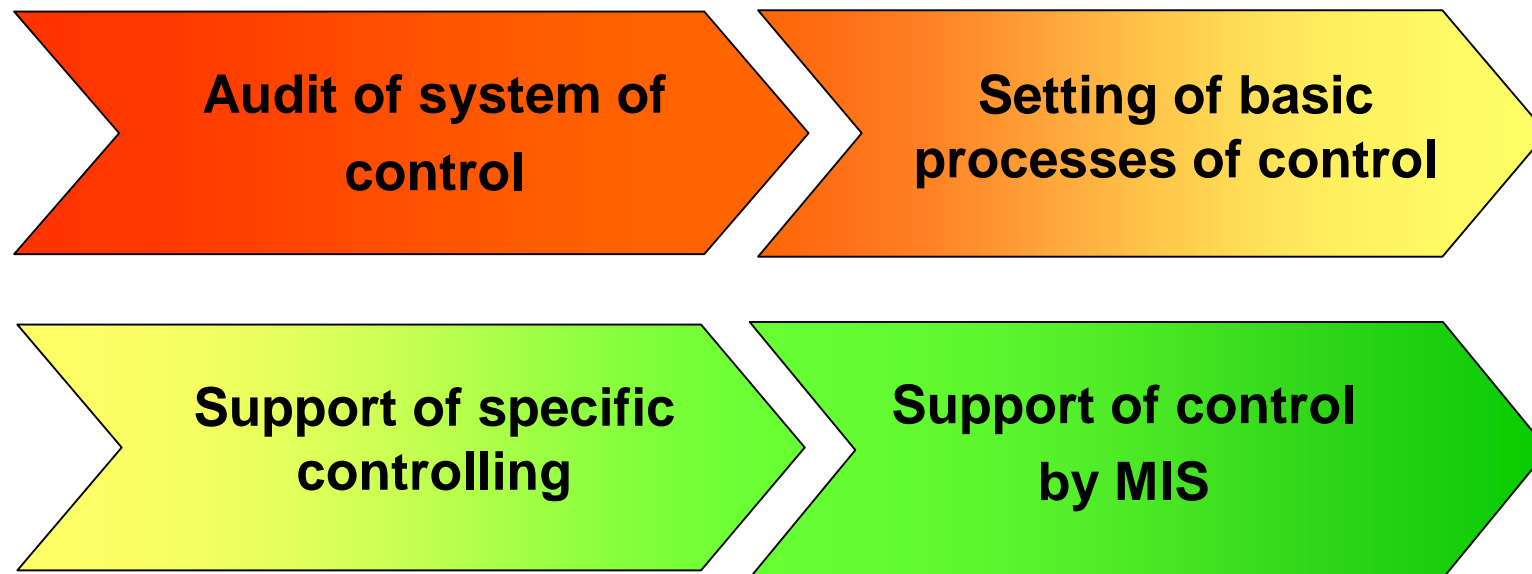
## What is it BI ?

- ▶ **It's complex of servises and IS**
- ▶ **It's strong support of customer's processes (esp. controlling)**
- ▶ **It's strong support of customer's needs**
- ▶ **=> It's change of philosophy of implementation of MIS**

# Basic model of control



## What's solution BI offers ?



## **Audit of system of control**

- ▶ **Analyse and methodical description of current system of control in hospital**
- ▶ **Significant accent**
  - operative management
  - department of controllingu
  - business accounting
  - budgeting
  - analyses of data and information
- ▶ **Interview with representative of departments and with middle and top management**

## Setting of basic processes of control

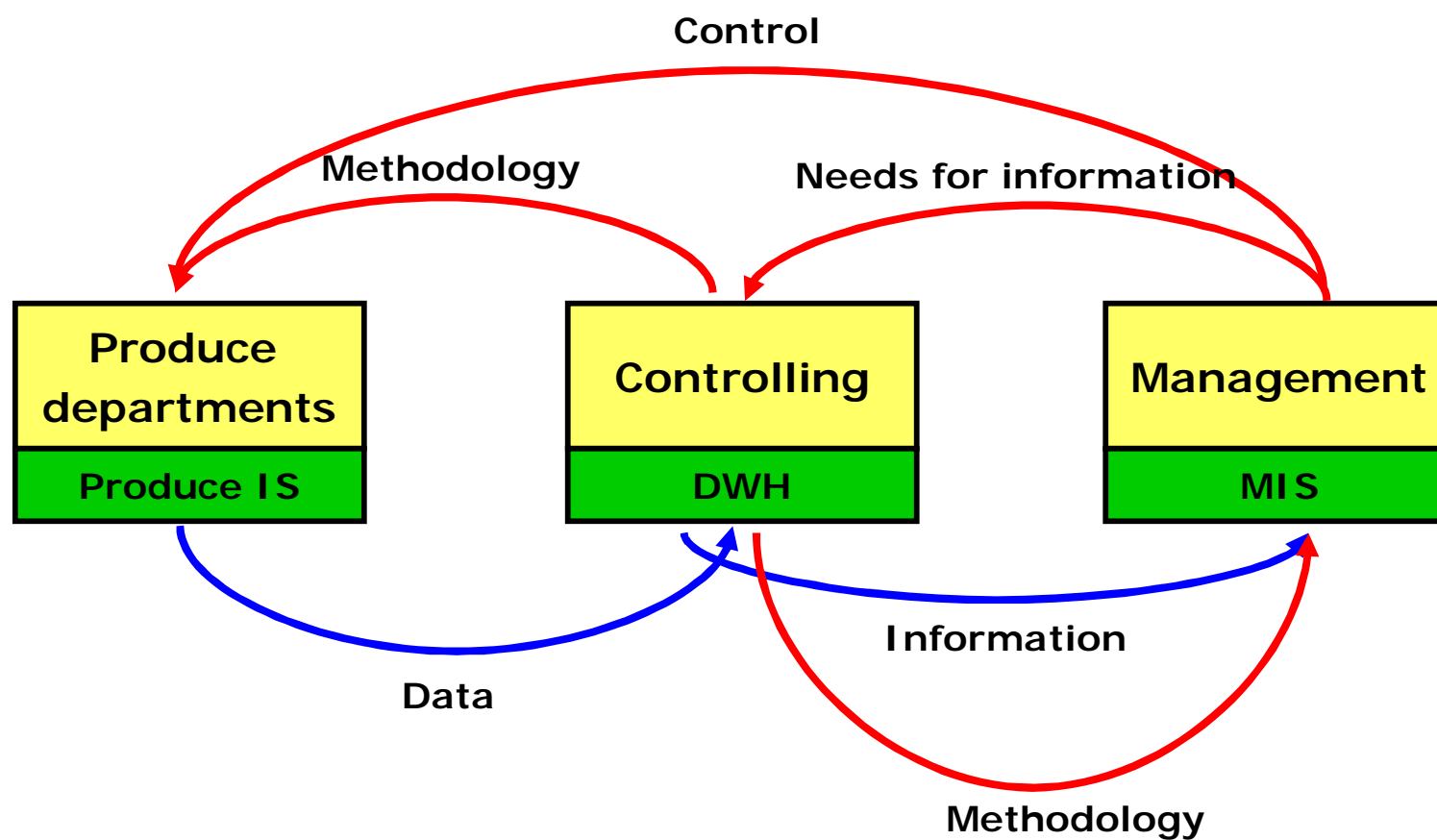
### ► **Project of concept of controlling**

- Project mail goals of controlling in hospital
- Description of contain and meaning of controlling in hospital
- Description of competence of controlling
- Project of organizational hierarchy of controlling
- Project of people in department of controlling.

### ► **Project of implementation of controlling**

- Detail description of project of implementation of controlling
- Including implementation schedule and conditionals for successful implementation

## Setting of basic processes of control



A large green arrow pointing to the right, with a yellow chevron on its left side.

## Support of specific controlling

- ▶ **Improving of quality of data resources**
- ▶ **Project and implementation of reporting**
- ▶ **Measurement of quality of healthcare**
- ▶ **Budgeting**
- ▶ **Business accounting**
- ▶ **Etc.**



## Improving of quality of data resources

### ► Problem area:

- Accounts of healthcare
- Allocation of costs of drugs and material
- Allocation of personal costs

### ► Basic steps for improving:

- Central administration of codebook
- Reduction “hand made” data entry
- Reduction multiple data entry
- Support of checking of data entry

## Support of specific controlling

# Improving of quality of data resources

ZZ	Odd.	NS	Název	Odb	N léky	ZULP	N Léky - ZULP	OSDNY	N SZM	ZUM	SZM N - ZUM
03	13701	13701321	Amb.interna	101	5 328	439	4 889		19 976		19 976
03	15301	15301118	Odd.rehabilita.fyz.med.-adm		390		390				
03	35601	35601911	Penzion celkem						1 173		1 173
03	15501	15501571	Operační sál RCH	899	61 452		61 452		284 027		284 027
03	00504	00504000	Stravovac oddŘlen								
03	13201	13201211	Stanice standardních lůžek	4F4	546 535	173 956	372 579	6 694.00	148 287		148 287
03	00700	00700119	Náčelník,administrativa								
03	14101	14101621	Stanice chirurgický JIP2	6T6	1 057 234	747 579	309 655	212.00	1 028 534	48 367	980 167
03	10300	10301311	Amb.pro léčbu bolestí	708							
03	20401	20401820	Infuzní roztoky		165 506		165 506				
03	14201	14201000	Odd.ort.,traumata RCH						1 217		1 217
03	00507	00507811	Sklad PHM								
03	10103	10103611	Stanice koronární JIP	1T1	1 441 932	451 686	990 246	4.00	834 174		834 174
03	10103	10103361	ECHO laboratoř	107		64 554	-64 554		5 183		5 183
03	15201	15201311	Patologie	807	286 684		286 684		370 931		370 931
03	14301	14301321	Jednotka SWL	706	27 974		27 974		42 294		42 294
03	10101	101013C1	Ambulance pro poruchy výživy	101							
03	14201	14201311	Ambulance stomatochirurgie	606	204 036	159 151	44 885		398 147	867 317	- 469 170
03	10103	10103118	Kardiologické oddělení-adm.		3 465		3 465				
03	14101	14101221	Stanice standardních lůžek B	5F1	1 630 190	783 319	846 871	5 693.00	49 135	4 355 924	-4 306 789
03	00603	00603118	Dietologické pracoviště-adm						511		511
03	00603	00603118	Diagnostické infocentrum adm						164		164

## Audit of accounts of healthcare

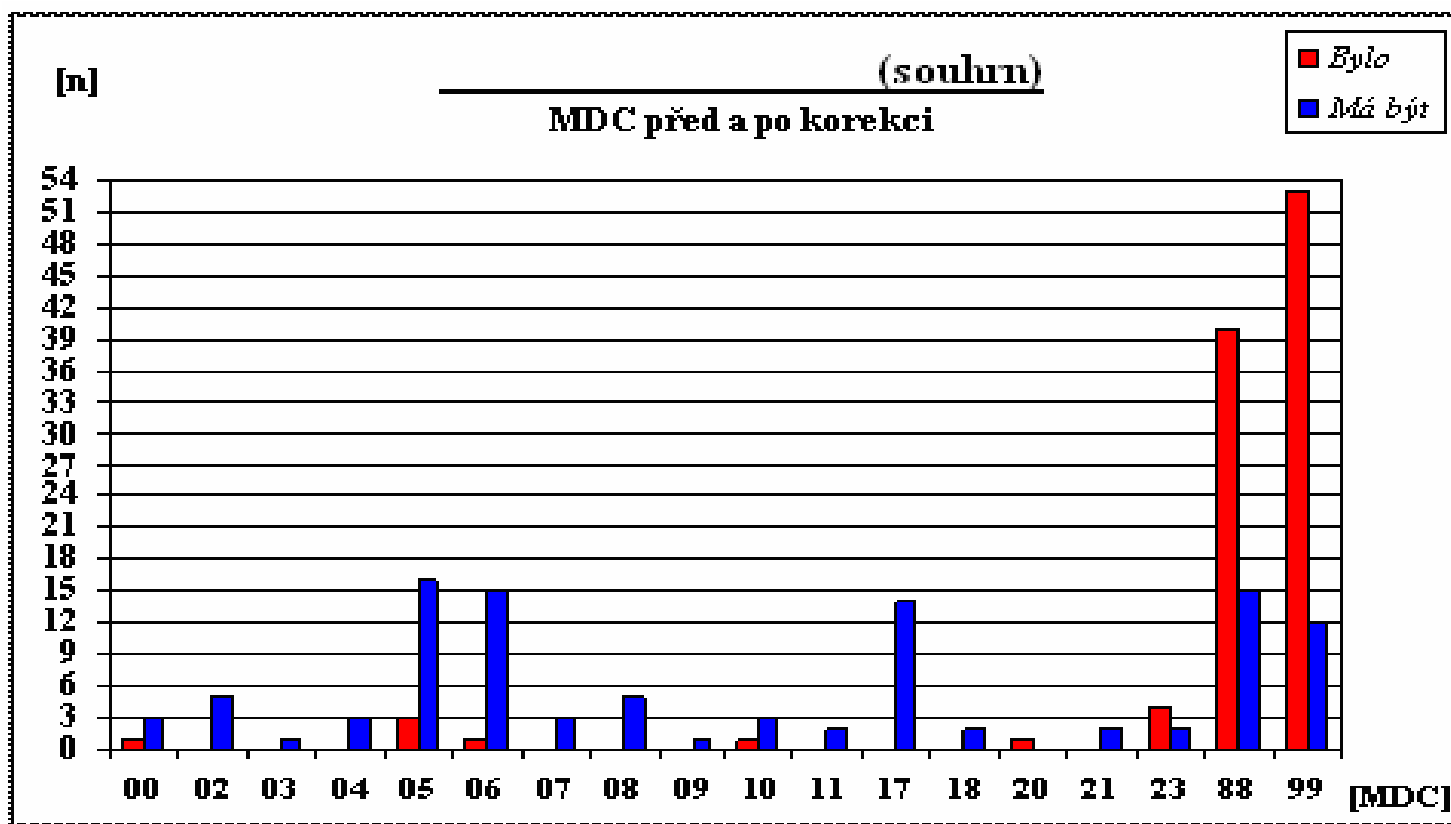
- ▶ Main goal of audit is **measurement of quality of data about healthcare** reporting to health insurance company
  
- ▶ Evaluation data:
  - Administration data
  - Clinical data
    - Main diagnosis
    - Others diagnosis
    - Drugs
    - Provided healthcare
  - Classification of hospitalization

Support of specific controlling

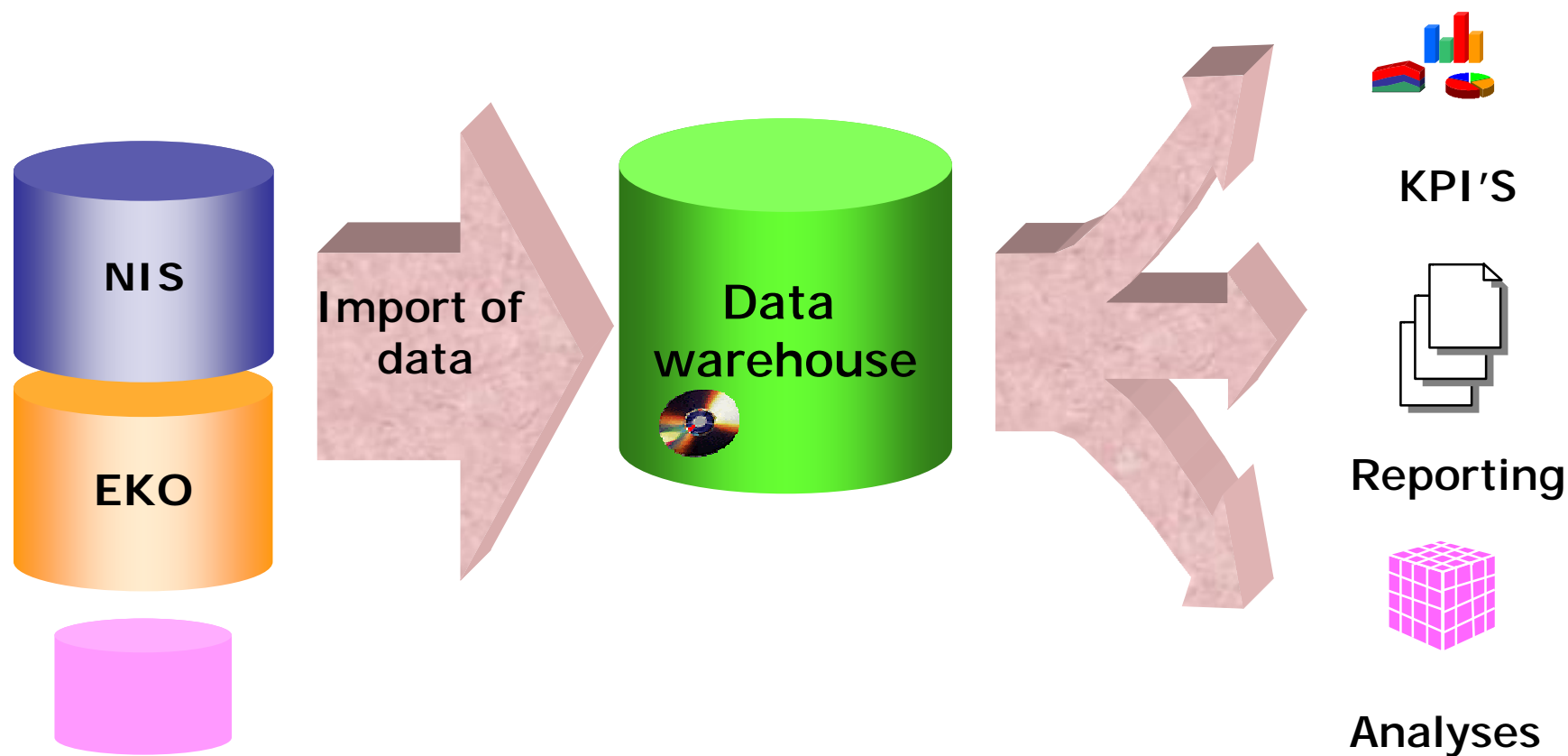
# Audit of accounts of healthcare

Klinické hodnocení		CH výběru	CH výběru	CH výběru	CH výběru	CH výběru	CH výběru	CH výběru	CH výběru
hlavní dgn.	bylo	I31.9	R69	I25.9	A41.9	I10	C92.0	Z94.8	mnohočetný myelom
	má být	I31.3	C64	H25.8	C76.1	C85.9	-	C90.0	
vedl. dgn.		CH kód.	CH kód.	CH kód.	CH kód.	CH kód.	CH kód.	CH kód.	
	bylo	E11.8	-	-	-	-	-	A41.9	
		-	-	-	-	-	-	-	
		-	-	-	-	-	-	-	
	má být	E11.2	-	-	-	-	-	A41.0	A41.0
	má být	Výpadek	Výpadek	Výpadek	Výpadek	Výpadek	Výpadek	Výpadek	Výpadek
		N08.3	I70.0	E66.9	E11.9	Z88.0	D63.0	I51.7	J02.0
		E78.2	C79.5	N20.0	N30.4	Z80.1	A41.0	N18.9	C78.8
		E11.3	Z88.6	M81.8	G95.8	E66.9	J98.1	D70	J20.1
		H28.0	E78.0	M54.8	Z92.3		J90	I10	R73.0
		D64.9					K80.2		
		I31.2					N28.9		
kód výkonu		N	A	A	A	A	A	A	
kód ZÚM/ZÚLP		N	A	A	N	A	A	A	

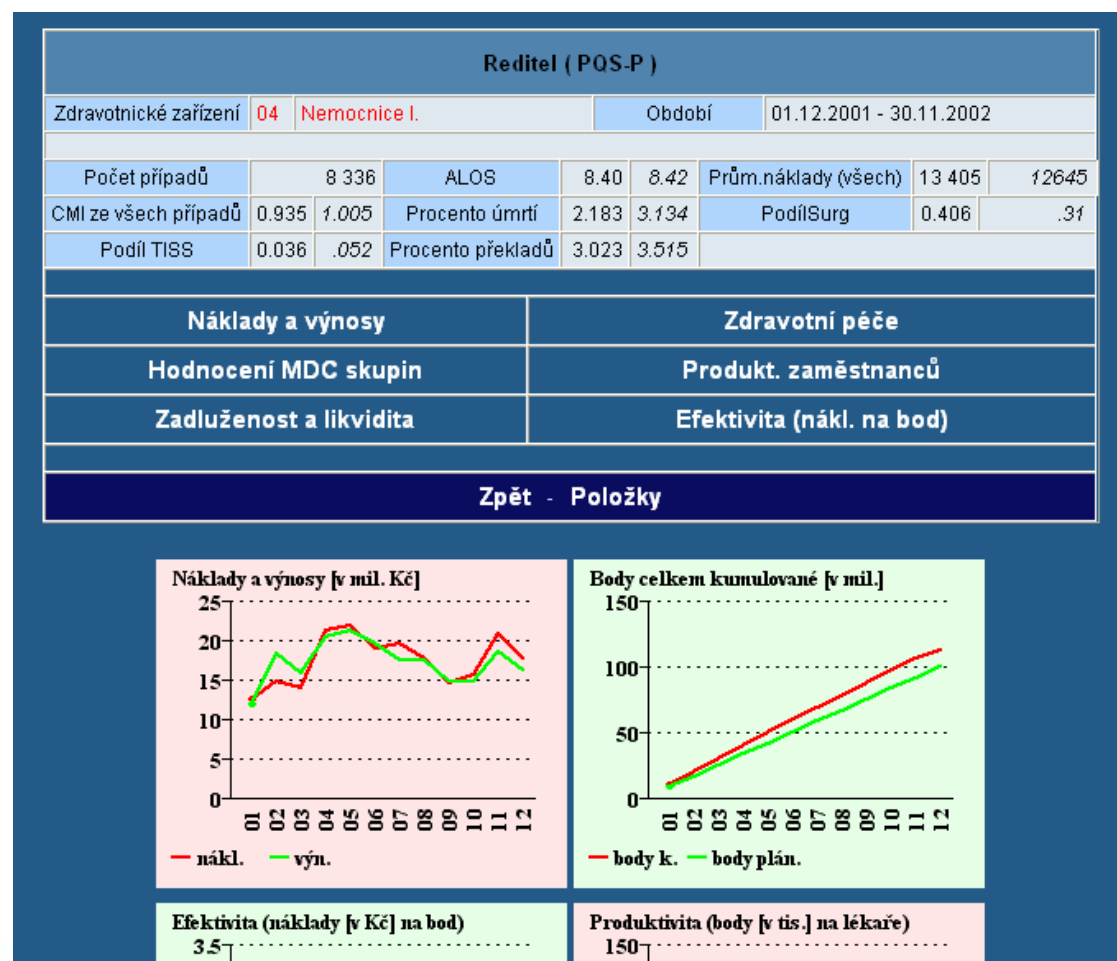
# Audit of accounts of healthcare



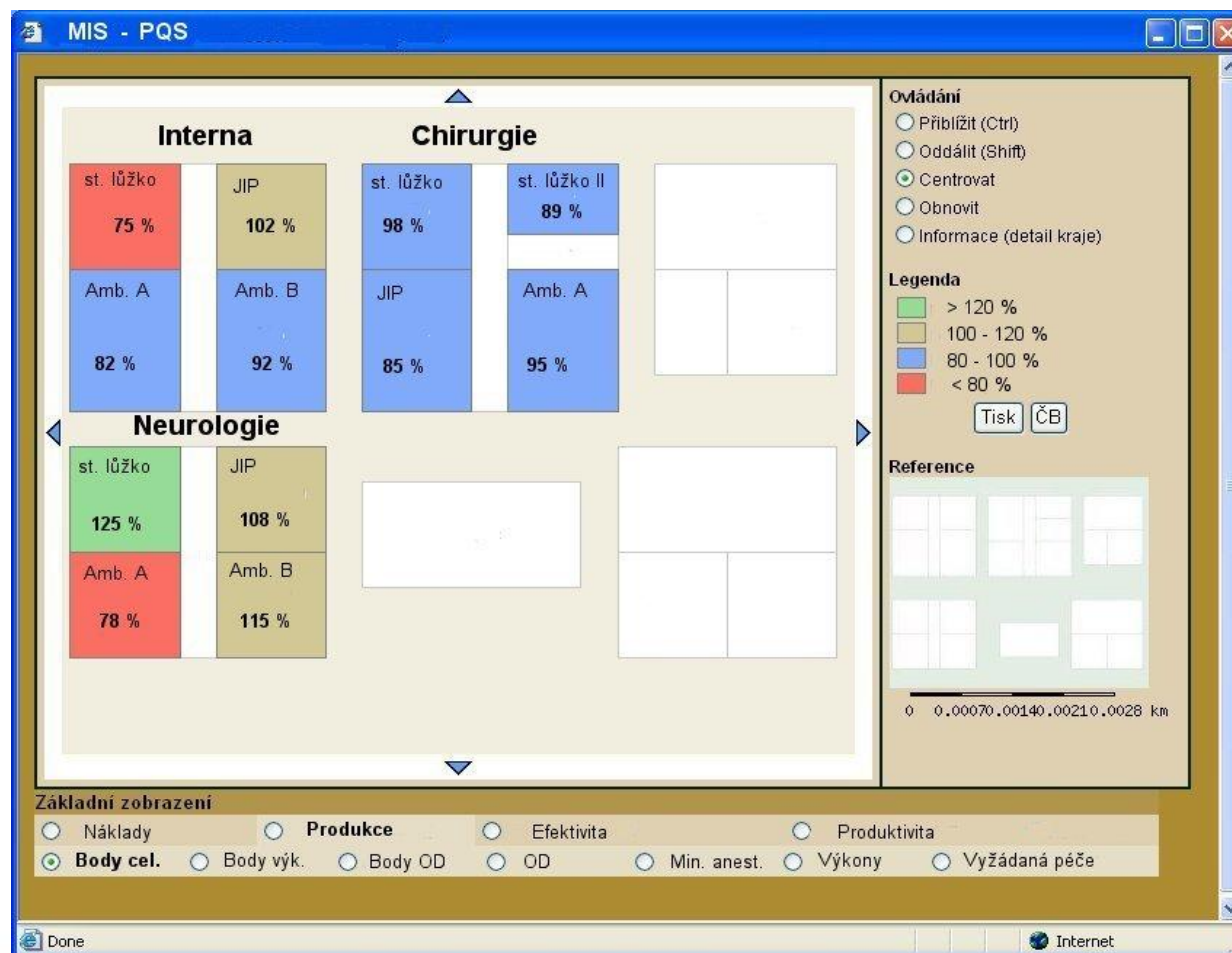
## Support of control by MIS



## Support of control by MIS



## Support of control by MIS





## Success story

### Implementation of MIS DWH in Faculty Hospital Brno

#### ► Basic information:

- Implementation of 7 moduls
- 50 codebook
- More than 100 reports
- Tens Gb of data every year
- More than 150 users
- Main resources of data:
  - Clinical IS
  - ERP
  - Personal IS





# Thank you for attention

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