

Oncological diseases

Teaching lesson 1

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Neoplastic diseases

neoplastic diseases = oncological diseases

- A neoplastic disease is defined as a growth of tissue, which is out of control and grows independently of the organism.
- Oncology
 - Medical branch that deals with the issue of neoplastic diseases
 - Derived from the Greek *onkos* = crab

Basic terms

Non-malignant = benign tumours

- Uncontrolled cell division
- Slow growth
- Delimited structure
- Do not spread through the surrounding tissues
- Pressure on the surrounding tissues
- Surgical removal
- No secondary tumours

Malignant tumours

- Uncontrolled cell division
- Aggressive growth
- Damage and pressure on the surrounding tissues
- Surgical removal
- Spread through the surrounding tissues
- Development of metastases
- Spread through blood and lymphatic channels
- Death of the organism

Basic terms

Metastasis

= new secondary (subsidiary) source of malignant tumour.

Risk factor

= factor that increases the probability of the onset of neoplastic disease.

- Internal and external risk factors

Risk factors

Risk factor	Increased risk of neoplastic disease
Smoking	Lung cancer, oral cavity cancer, pharynx cancer, larynx cancer, oesophagus cancer Pancreatic cancer, urinary system cancer
Alcohol	Oral cavity cancer, pharynx cancer, larynx cancer, oesophagus cancer Colon cancer, liver cancer, breast cancer
Poor diet	Colorectal cancer, stomach cancer, prostate cancer, lung cancer Breast cancer, uterine cancer
Overweight, obesity	Uterine cancer, breast cancer, colorectal cancer, gall bladder cancer
HPV infection	Cervical cancer
UV radiation	Skin cancer

Risk factors

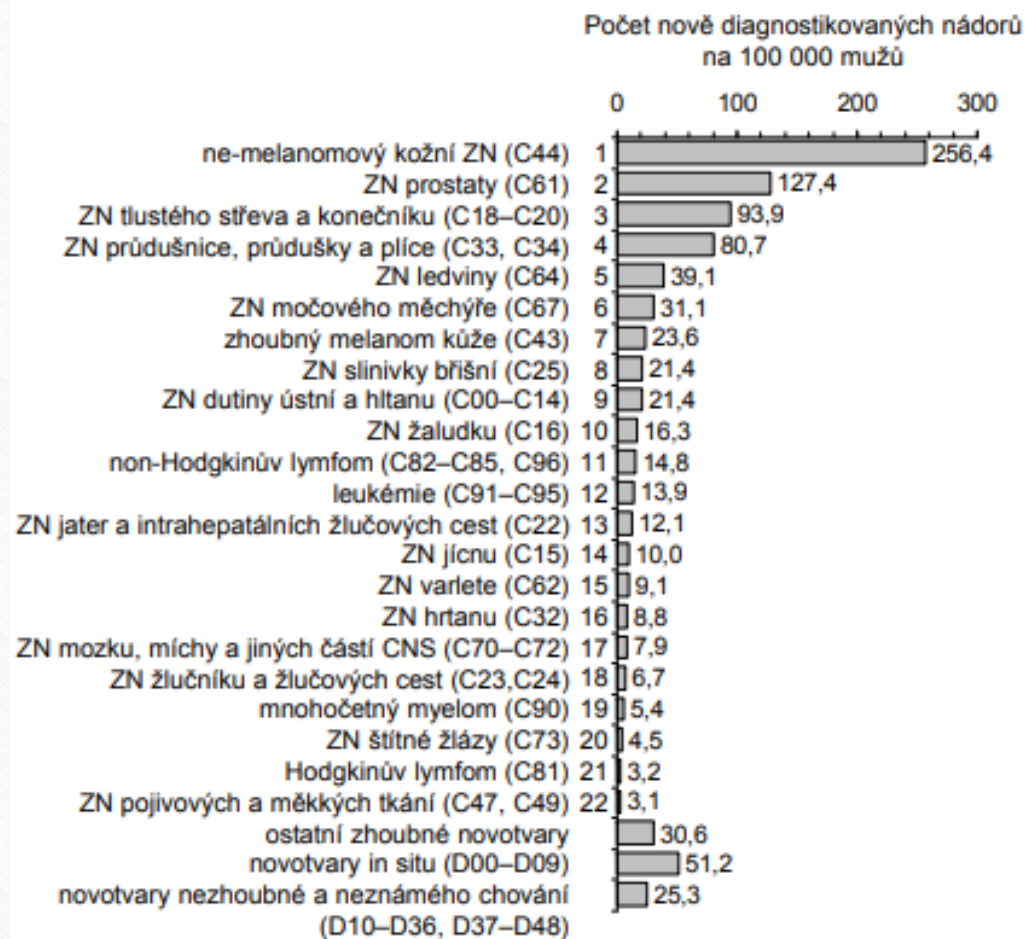
- Other risk factors include:
 - Decreased physical activity
 - Stress
 - Frequent menstruation
 - Late or no pregnancy
 - Short-term or no breastfeeding
 - Inheritance
 - Age
 - Gender
- } Internal risk factors

Neoplastic diseases in the Czech Republic

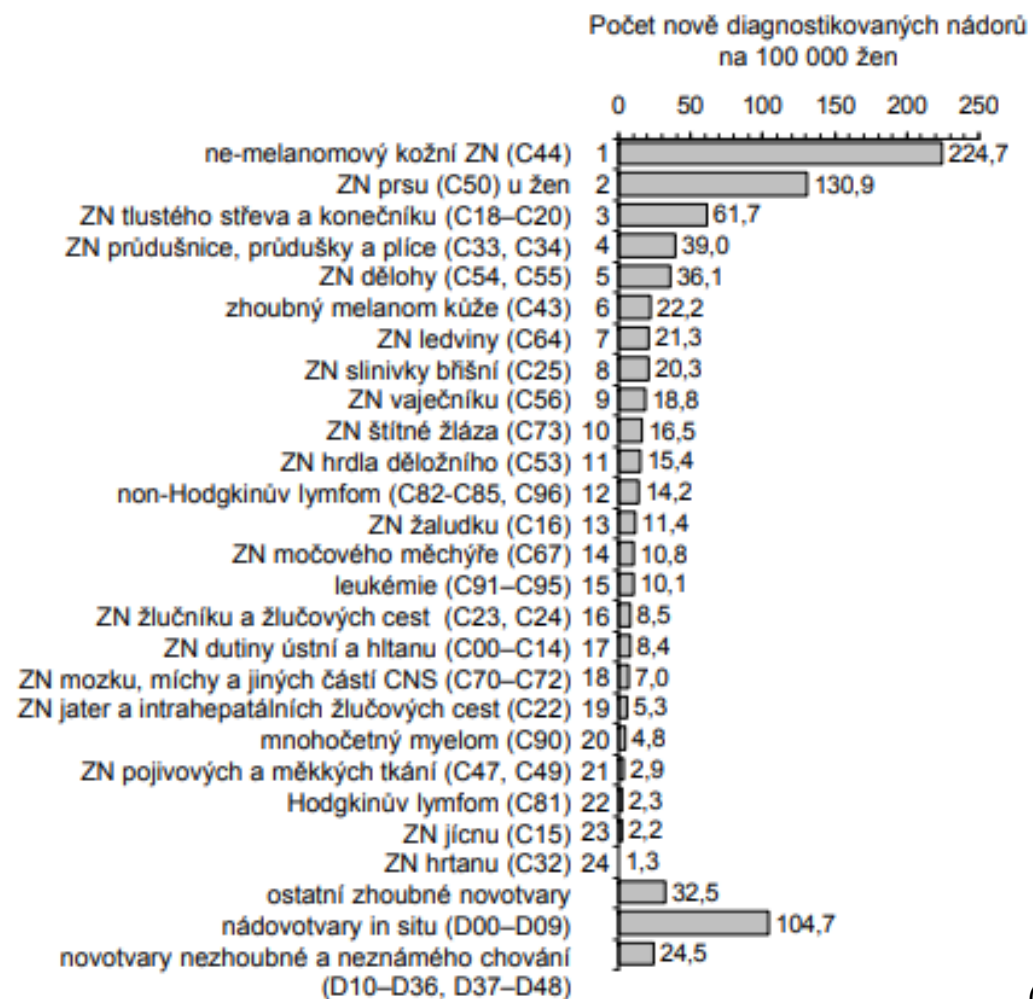
The second most frequent cause of death!

- Most frequent neoplastic diseases
 - Skin cancer
 - Prostate cancer in men, breast cancer in women
 - Colorectal cancer
 - Lung cancer

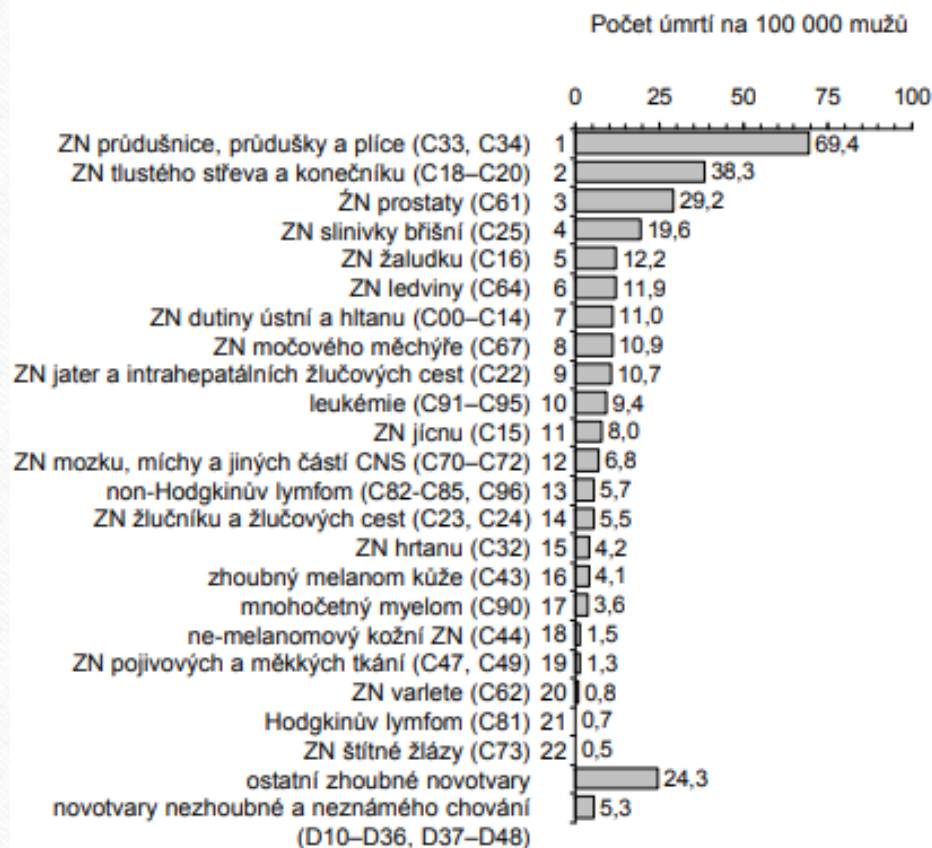
1a. Incidence 2014, muži



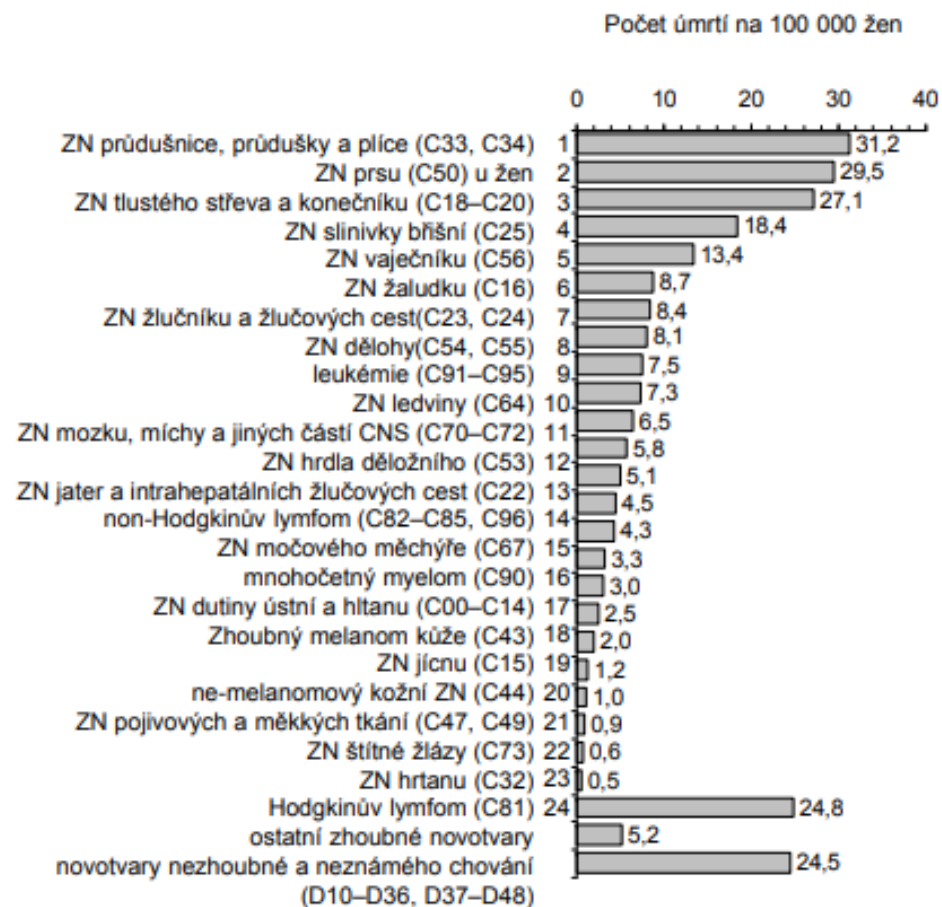
1b. Incidence 2014, ženy



1c. Mortalita 2014, muži



1d. Mortalita 2014, ženy



References

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Figures:

- (1), (2): *Novotvary 2015 ČR* [online]. Praha: Ústav zdravotnických informací a statistik ČR, 2015. [cit. 2018-04-30]. Retrieved from: <http://www.uzis.cz/publikace/novotvary-2015>