

Geriatrica a farmaka

Úvod

Michal Horáček

KARIM 2. LF UK v FN Motol a katedra AIM IPVZ

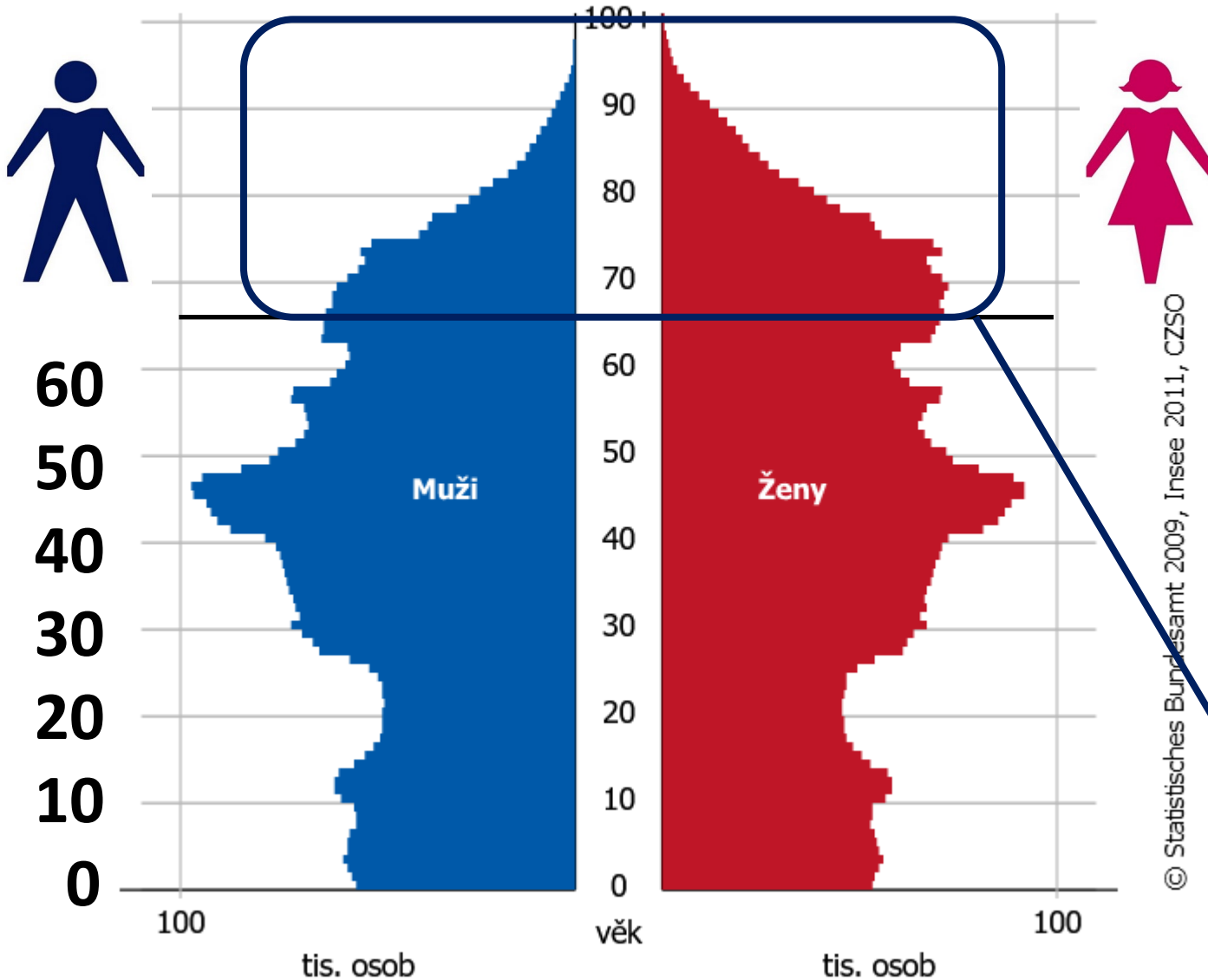
Praha

XXVIII. kongres ČSARIM Brno

15. 9. 2022



Věková pyramida ke dni Sčítání 2021 Česká republika



Věková struktura obyvatel ČR

	Průměrný věk obyvatel (roky)		
	celkem	muži	ženy
1991	36,3	34,6	38,0
2001	38,8	37,1	40,3
2011	41,0	39,5	42,4
2021	42,7	41,2	44,1

20 % seniorů ≥ 65 let = 2,17 mil.
25 % všech anestezií = 223 tisíc

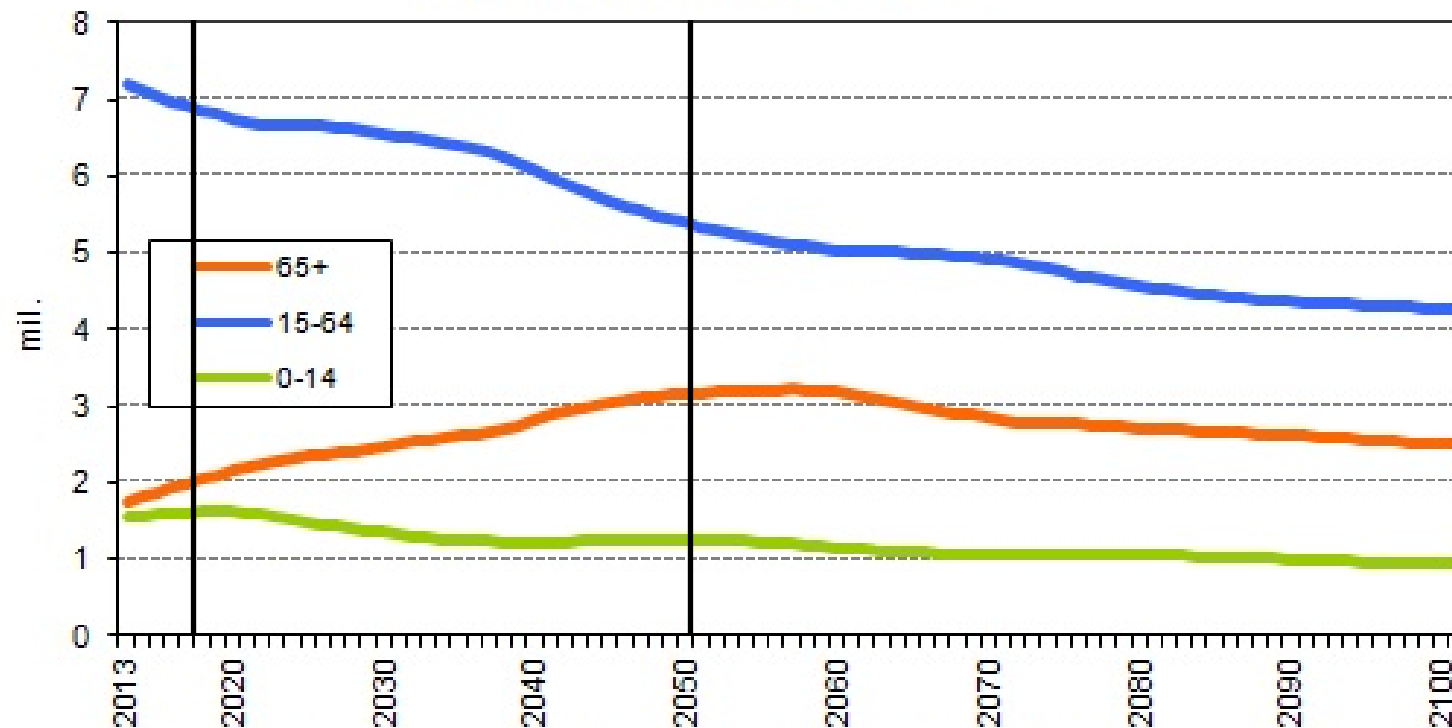
Predikce podílu seniorů v ČR



2018



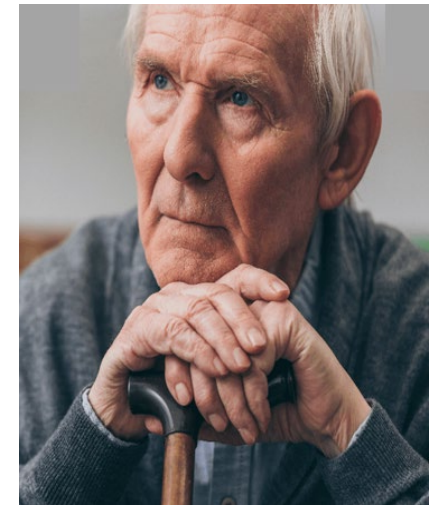
Očekávaný vývoj počtu obyvatel podle hlavních věkových skupin
do roku 2101
(střední varianta projekce; k 1.1.)



Pramen: Projekce obyvatelstva ČR do roku 2100, Český statistický úřad, červenec 2013

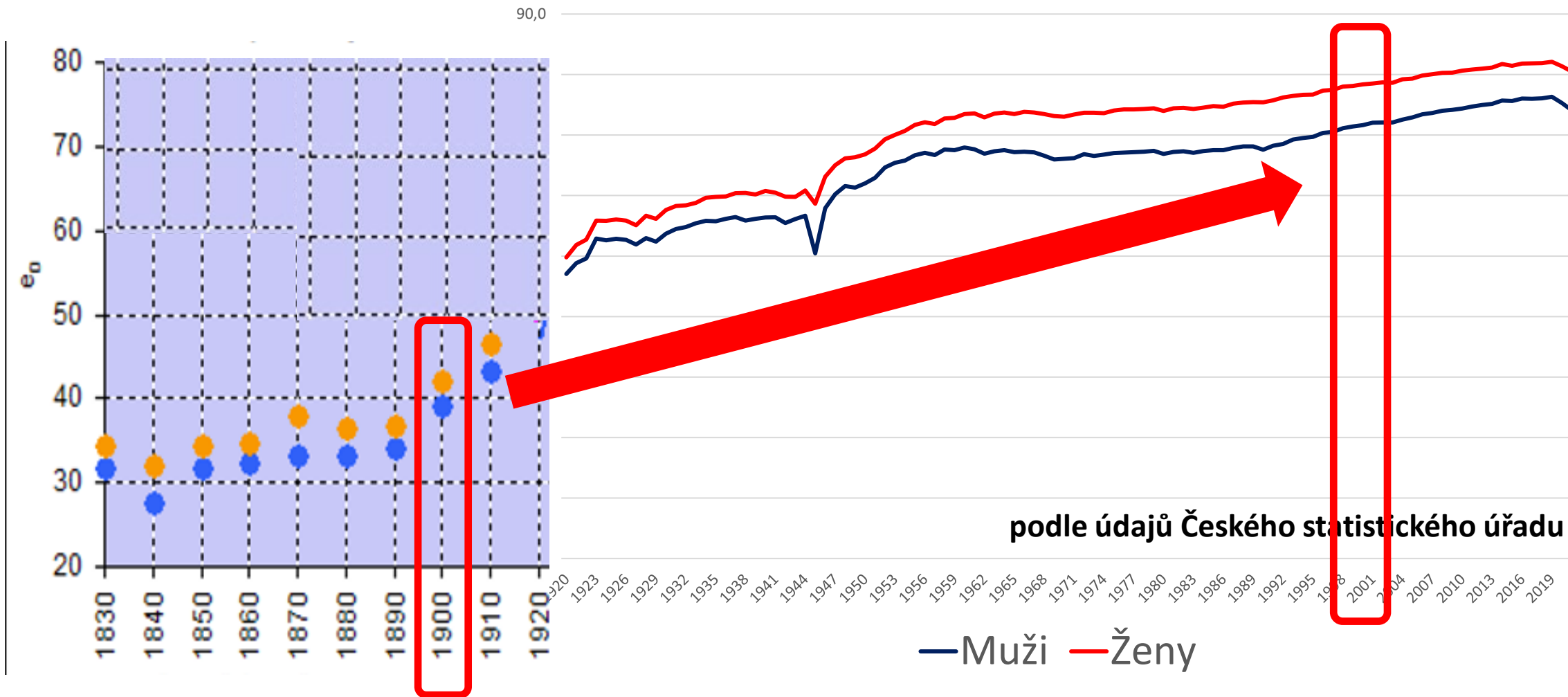


2050



https://www.czso.cz/csu/czso/ocekavany_vyvoj_poctu_obyvatel_podle_hlavnich_vekovych_skupin_do_roku_2101

Naděje na dožití při narození v ČR 1830-2020





**V České republice
je 2,17 mil. seniorů
a podle odhadu
300-500 000 lidí
(20 % seniorů)
s mírnou kognitivní dysfunkcí!**

Hort J: Meditalks 22.8.2022, www.prolekare.cz





**V České republice
je podle odhadu
180 000 (1,8 %) lidí s demencí!**

Franková V: Optimalizace léčby Alzheimerovy choroby.
Psychiatr. praxi 2015; 16(3): 79–82, internimedica.cz

**Jejich počet se od roku 1990
zdvojnásobil!**

Česká Alzheimerovská společnost: Zpráva o stavu demence 2015
[*http://www.zdravotnickydenik.cz/](http://www.zdravotnickydenik.cz/) 6.1.2017



Výsledky nejsou skvělé!



Mortality after surgery in Europe: a 7 day cohort study

2012

Rupert M Pearse, Rui P Moreno, Peter Bauer, Paolo Pelosi, Philipp Metnitz, Claudia Spies, Benoit Vallet, Jean-Louis Vincent, Andreas Hoeft, Andrew Rhodes, for the European Surgical Outcomes Study (EuSOS) group for the Trials groups of the European Society of Intensive Care Medicine and the European Society of Anaesthesiology*

Summary

Background Clinical outcomes after major surgery are poorly described at the national level. Evidence of heterogeneity between hospitals and health-care systems suggests potential to improve care for patients but this potential remains unconfirmed. The European Surgical Outcomes Study was an international study designed to assess outcomes after non-cardiac surgery in Europe.

Methods We did this 7 day cohort study between April 4 and April 11, 2011. We collected data describing consecutive patients aged 16 years and older undergoing inpatient non-cardiac surgery in 498 hospitals across 28 European nations. Patients were followed up for a maximum of 60 days. The primary endpoint was in-hospital mortality. Secondary outcome measures were duration of hospital stay and admission to critical care. We used χ^2 and Fisher's exact tests to compare categorical variables and the *t* test or the Mann-Whitney *U* test to compare continuous variables. Significance was set at $p < 0.05$. We constructed multilevel logistic regression models to adjust for the differences in mortality rates between countries.

Findings We included 46 539 patients, of whom 1855 (4%) died before hospital discharge. 3599 (8%) patients were admitted to critical care after surgery with a median length of stay of 1.2 days (IQR 0.9–3.6). 1358 (73%) patients who died were not admitted to critical care at any stage after surgery. Crude mortality rates varied widely between countries (from 1.2% [95% CI 0.0–3.0] for Iceland to 21.5% [16.9–26.2] for Latvia). After adjustment for confounding variables, important differences remained between countries when compared with the UK, the country with the largest dataset (OR range from 0.44 [95% CI 0.19–1.05; $p = 0.06$] for Finland to 6.92 [2.37–20.27; $p = 0.0004$] for Poland).

Interpretation The mortality rate for patients undergoing inpatient non-cardiac surgery was higher than anticipated. Variations in mortality between countries suggest the need for national and international strategies to improve care for this group of patients.

Lancet 2012; 380: 1059–65

See Comment page 1034

*Members listed in appendix
Barts and The London School of Medicine and Dentistry, Queen Mary University of London, London, UK (R M Pearse MD); UCIN, Hospital de São José, Centro Hospitalar de Lisboa Central, EPE, Lisbon, Portugal (Prof R P Moreno PhD); Section of Medical Statistics (Prof P Bauer PhD), and Department of Anaesthesia and General Intensive Care (Prof P Metnitz PhD), Medical University of Vienna, Vienna, Austria; IRCCS AOU San Martino-IST, Department of Surgical Sciences and Integrated Diagnostics, University of Genoa, Genoa, Italy (Prof P Pelosi PhD); Charité-Universitätsmedizin, Berlin, Germany (Prof C Spies PhD); Anaesthesiology and Critical Care, University Hospital, Lille, France (Prof B Vallet PhD);

Eu-SOS: nemocniční mortalita v ČR **2,3 %!**

European Surgical Outcomes Study v Evropě 4 %

průměrný věk 46 539 pacientů 56,7 ± 18,5 roku, v ČR **434 pacientů**



Swedish surgical outcomes study (SweSOS)



An observational study on 30-day and 1-year mortality after surgery

Monir Jawad, Amir Baigi, Anders Oldner, Rupert M. Pearse, Andrew Rhodes, Helen Seeman-Lodding and Michelle S. Chew

Eur J Anaesthesiol 2015; 32:1–9

BACKGROUND The European Surgical Outcomes Study (EuSOS) revealed large variations in outcomes among countries. In-hospital mortality and ICU admission rates in Sweden were low, going against the assumption that access to ICU improves outcome. Long-term mortality was not reported in EuSOS and is generally poorly described in the current literature.

OBJECTIVE To describe the characteristics of the Swedish subset of EuSOS and identify predictors of short and long-term mortality after surgery.

DESIGN An observational cohort study.

SETTING Six universities and two regional hospitals in Sweden.

PATIENTS A cohort of 1314 adult patients scheduled for surgery between 4 April and 11 April 2011.

MAIN OUTCOME MEASURES 30-day and 1-year mortality.

RESULTS A total of 303 patients were lost to follow-up, leaving 1011 for analysis; 69% of patients were classified as American Society of Anesthesiologists' physical status 1 or 2, and 68% of surgical procedures were elective. The

was 175 min (interquartile range 110–270); 6.6% of patients had PACU length of stay of more than 12 h and 3.6% of patients were admitted to the ICU postoperatively.

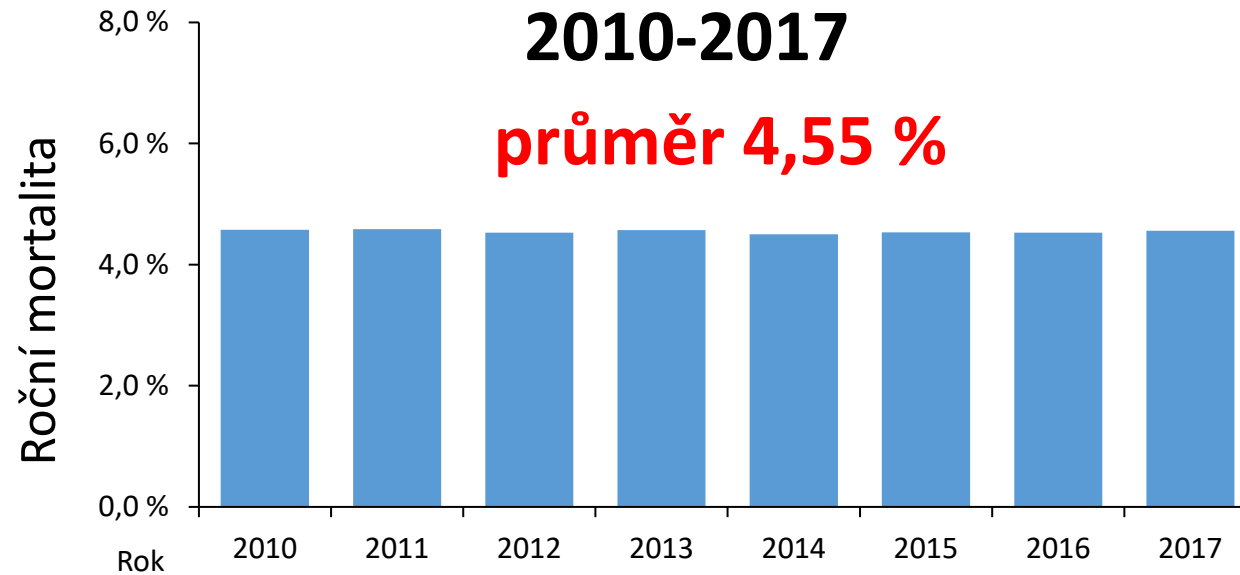
Thirty-day mortality rate was 1.8% [95% confidence interval (CI) 1.0–2.6] and 8.5% CI 6.8–10.2 at 1 year ($n = 18$ and 86). The risk of death was higher than in an age and sex-matched population after 30 days (standardised mortality ratio 10.0, CI 5.9–15.8), and remained high after 1 year (standardised mortality ratio 3.9, CI 3.1–4.8). Factors predictive of 30-day mortality were age, American Society of Anesthesiologists' physical status, number of comorbidities, urgency of surgery and ICU admission. For 1-year mortality, age, number of comorbidities and urgency of surgery were independently predictive. ICU admission and long stay in PACU were not significant predictors of long-term mortality.

CONCLUSION Mortality rate increased almost five-fold at 1 year compared with 30-day mortality after surgery, demonstrating a significantly sustained long-term risk of death in this surgical population. In Sweden, factors associated with long-term postoperative mortality were age, number of comorbidities and surgical urgency.

Published online xx month 2015

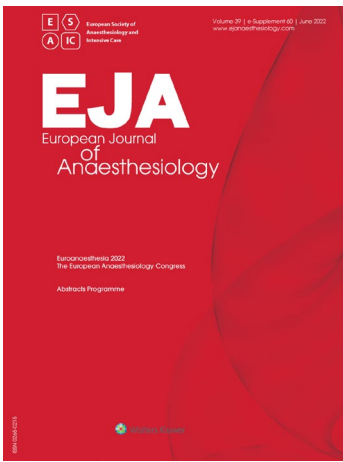


prof. L. Dušek



	Počet hospitalizací s anestezií	Počet hospitalizovaných osob s anestezií
2010	669 647	595 424
2011	664 065	590 755
2012	681 589	604 071
2013	669 910	593 305
2014	682 640	605 851
2015	667 258	593 057
2016	673 027	597 702
2017	667 464	592 612
2018	661 067	587 314





Ale snad se zlepšujeme?



Peri-interventional outcome study in the elderly in Europe

A 30-day prospective cohort study

<https://pose-trial.org/>

POSE-Study group* *Eur J Anaesthesiol* 2022; **39**:198–209

≥ 80 let
20 zemí
9500 pac.

OBJECTIVES The aim of this study was to describe the 30-day mortality rate of patients aged 80 years and older undergoing surgical and nonsurgical procedures under anaesthesia in Europe and to identify risk factors associated with mortality.

DESIGN A prospective cohort study.

SETTING European multicentre study, performed from October 2017 to December 2018. Centres committed to a 30-day recruitment period within the study period.

PATIENTS Nine thousand four hundred and ninety-seven consecutively recruited patients aged 80 years and older undergoing any kind of surgical or nonsurgical procedures under anaesthesia.

MAIN OUTCOME MEASURES The primary outcome was all-cause mortality within 30 days after procedure described by Kaplan–Meier curves with 95% CI. Risk factors for 30-day mortality were analysed using a Cox regression model with 14 fixed effects and a random centre effect.

RESULTS Data for 9497 patients (median age, 83.0 years; 52.8% women) from 177 academic and nonacademic

hospitals in 20 countries were analysed. Patients presented with multimorbidity (77%), frailty (14%) and at least partial functional dependence (38%). The estimated 30-day mortality rate was 4.2% (95% CI 3.8 to 4.7). Among others, independent risk factors for 30-day mortality were multimorbidity, hazard ratio 1.87 (95% CI 1.26 to 2.78), frailty, hazard ratio 2.63 (95% CI 2.10 to 3.30), and limited mobility, hazard ratio 2.19 (95% CI 1.24 to 3.86). The majority of deaths (76%) occurred in hospital. Mortality risk for unplanned ICU admission was higher, hazard ratio 3.57 (95% CI 2.38 to 5.26) than for planned ICU admission, hazard ratio 1.92 (95% CI 1.47 to 2.50). Compared with other studies, the in-hospital complication rates of 17.4 and 3.9% after discharge were low. Admission to a unit with geriatric care within 30 days after the intervention was associated with a better survival within the first 10 days.

CONCLUSIONS The estimated 30-day mortality rate of 4.2% was lower than expected in this vulnerable population.

TRIAL REGISTRATION ClinicalTrials.gov Identifier: NCT03152734, <https://clinicaltrials.gov>.

Published online 18 November 2021

4,2 %

nezávislost:

61,6 % →

→ 49,9 %

DOI: 10.1111/ggi.13456

ORIGINAL ARTICLE

EPIDEMIOLOGY, CLINICAL PRACTICE AND HEALTH **≥ 80 let**

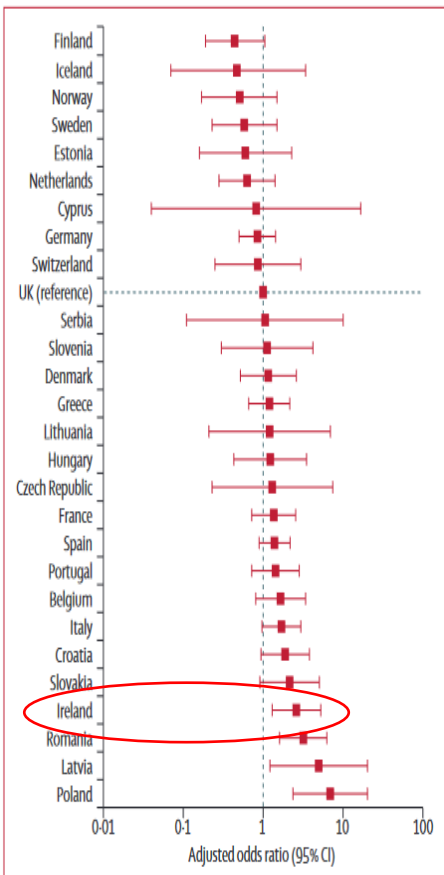
Emergency surgery in octogenarians: Outcomes and factors affecting mortality in the general hospital setting

Jarlath C Bolger, Akif Zaidi, Adrian Fuentes-Bonachera, Michael E Kelly, Aqeel Abbas, Ailin Rogers, Tom McCormack, Brian Waldron and Kevin P Murray

Geriatr Gerontol Int. 2018 Aug;18(8):1211-1214. doi: 10.1111/ggi.13456.

- 128 pacientů ≥ 80 let
- laparotomie 65 %, uskřínutá kýla 18 %

• 30denní mortalita **22,6 %**



Program

Předsedající:

[i](#) Michal Horáček, [i](#) Pavel Ševčík

Prezentace

1	14:30	i Úvod (jen krátce demografie, podíl na operativě) Přednášející: i Michal Horáček		15 min
2	14:45	i Kognitivní funkce - máme je rutinně vyšetřovat? Proč a jak? Přednášející: i Michal Horáček	Kognitivní funkce	15 min
3	15:00	i Peroperační hypotenze - vážný problém? Jak ji řešit? Přednášející: i Jan Beneš	Hypotenze	15 min
4	15:15	i Léčba bolesti - jak nejlépe? Přednášející: i Pavel Ševčík	Bolest	15 min
5	15:30	i Delirium - co dělat? Přednášející: i Jan Divák	Delirium	15 min
6	15:45	i Diskuze		15 min

Proč ?

- **kognitivní dysfunkce** před operací = **zranitelný mozek**
- zranitelný mozek + inzult **hypotenze (hypoperfuze) + bolest** = **pooperační delirium**
- **pooperační delirium** = **nejčastější komplikace** u seniorů, 10x častější než jiné, např. AIM, dechové selhání, sepse
- **pooperační delirium** zvyšuje **mortalitu a morbiditu**