Brief Introduction & Publication strategy

Péter Hegyi

Centre for Translational Medicine

p.hegyi@tm-centre.org

2nd October, 2019

University of Pécs
Pécs

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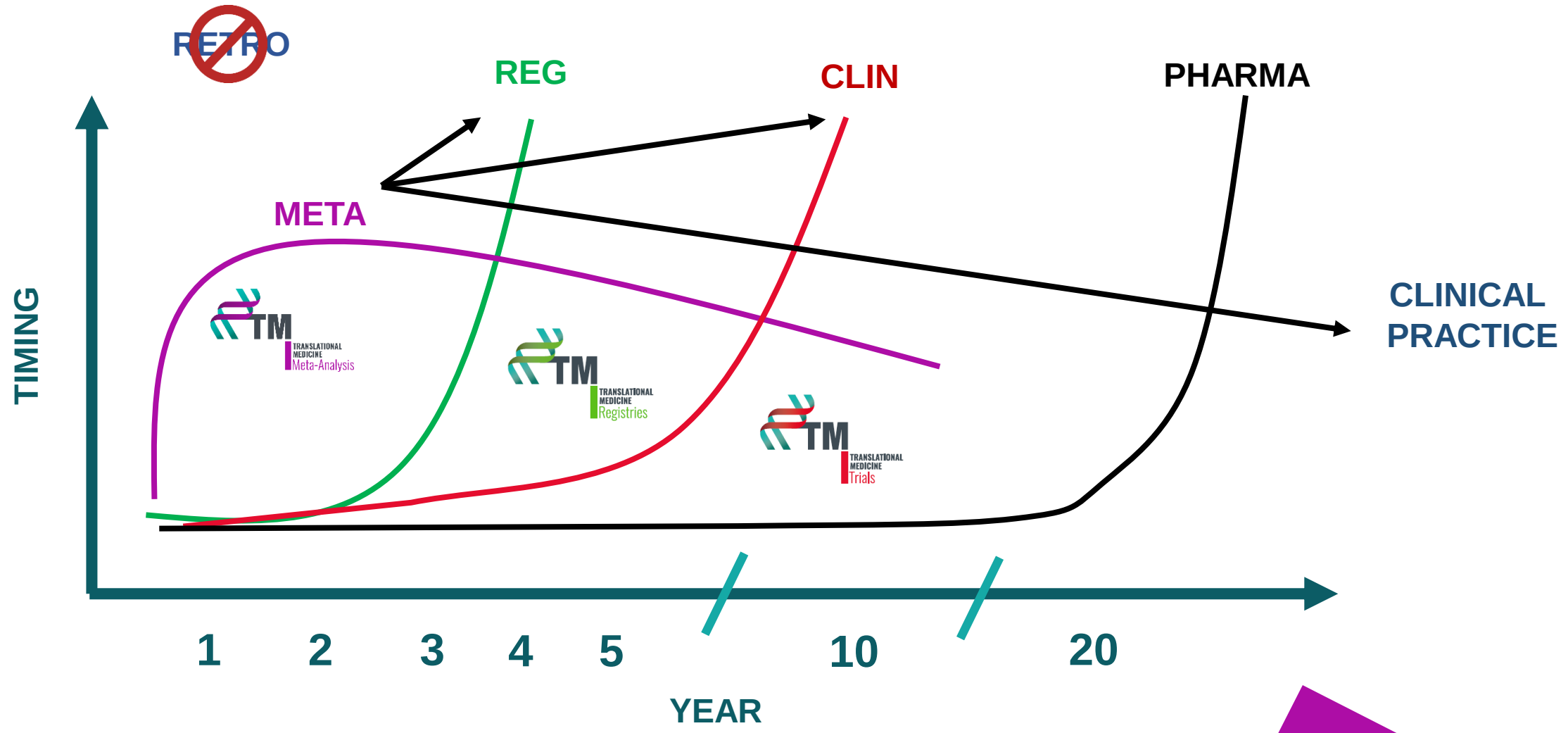

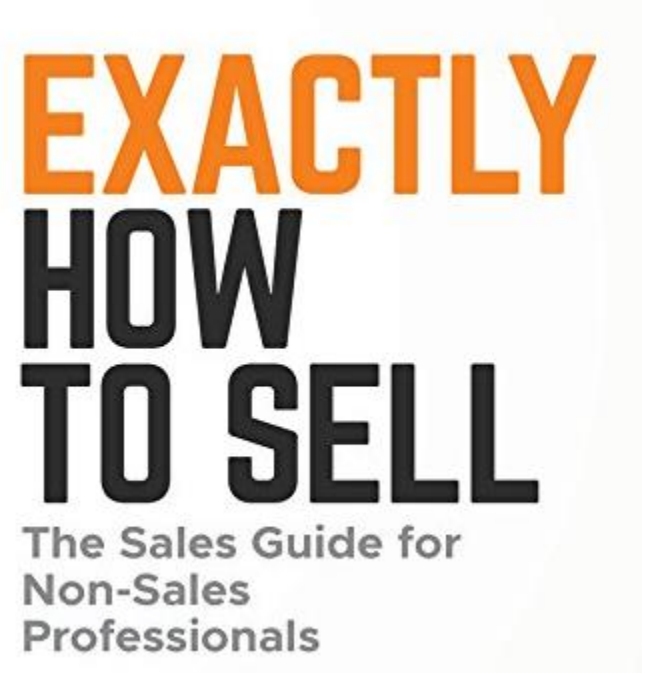
EXACTLY
HOW
TO SELL
The Sales Guide for
Non-Sales
Professionals

Q1 WHAT ARE THE ELEMENTS OF A PUBLICATION

TITLE
ABSTRACT
INTRODUCTION
METHODS
RESULT
DISCUSSION
CONCLUSION

Q2 WHICH ORDER SHOULD I START?

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TITLE

ABSTRACT

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CONCLUSIONS

TITLE
ABSTRACT
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CONCLUSIONS

- the **most usable** ones in practice
- no more than **two or three** points
- highlight the **importance**
- Point the the **future**

THIS IS THE FINAL CLAIM!

TITLE
ABSTRACT
INTRODUCTION
METHODS
RESULTS
DISCUSSION
CONCLUSIONS

METHODS

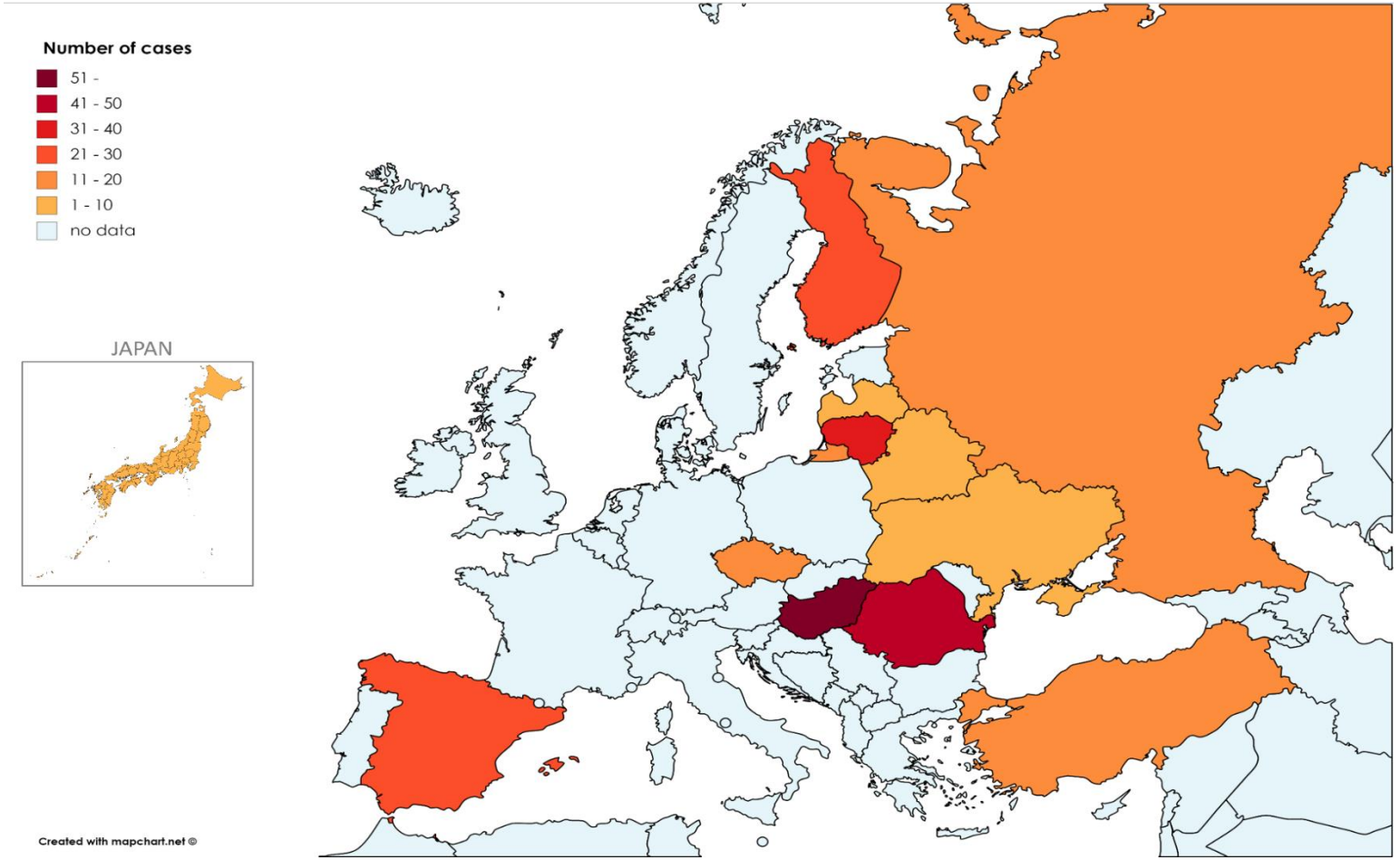
- Only a **summary** of the method
- All details can go to the **supplementary materials**

RESULTS

- **point by point** (like in the guidelines)
- put them in a logical order (**make a story**)
- put only the **undisposable** ones into the main text (**must have**)
- put into the section which **justify your conclusion**
- put every other figures to the supplementary part (**nice to have**)
- **connect** them
- highlight the **new discoveries**, **make a table**
- you can **change the order at any time**

WHERE WERE YOUR DATA COLLECTED?

DISTRIBUTION OF CASES



WHAT IS THE QUALITY OF OUR THE DATA?

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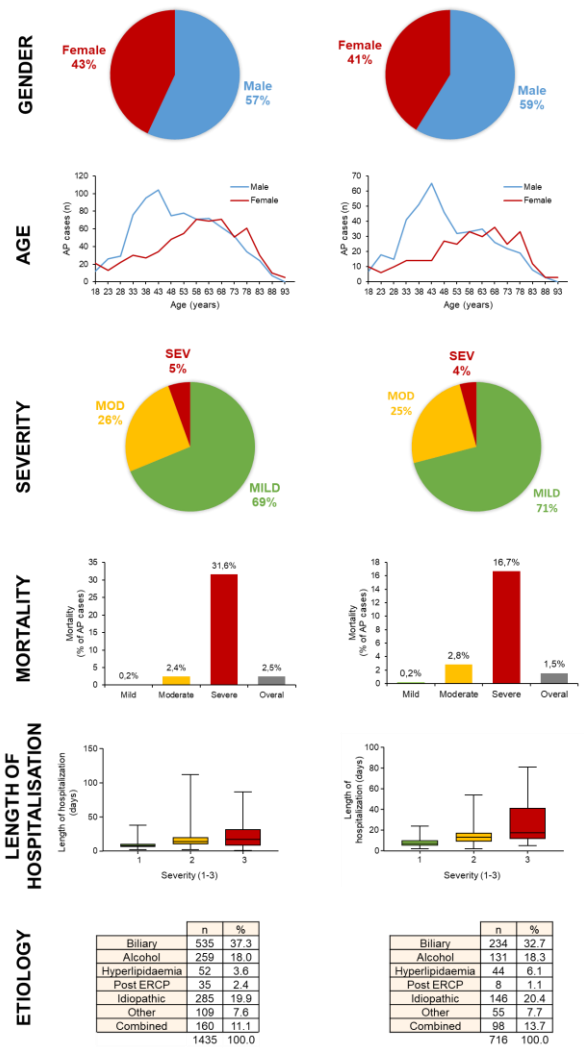
DATA QUALITY OF INVESTIGATED PARAMETERS

parameter	overall	uploaded data	%
Age at the time of admission	1435	1435	100.0%
Gender	1435	1435	100.0%
Severity	1435	1435	100.0%
Mortality	1435	1435	100.0%
LOH	1435	1435	100.0%
Abdominal pain	1435	1432	99.8%
Abdominal pain length before admission	1435	1202	83.8%
Ad Antibiotic therapy	1435	1291	90.0%
Ad White blood cell (WBC) count (G/l)	1435	1288	89.8%
D1 White blood cell (WBC) count (G/l)	1435	865	60.3%
D2 White blood cell (WBC) count (G/l)	1435	746	52.0%
D3 White blood cell (WBC) count (G/l)	1435	657	45.8%
D4 White blood cell (WBC) count (G/l)	1435	518	36.1%
D5 White blood cell (WBC) count (G/l)	1435	429	29.9%
D6 White blood cell (WBC) count (G/l)	1435	374	26.1%
D7 White blood cell (WBC) count (G/l)	1435	338	23.6%
Ad C-reactive protein (mg/l)	1435	1177	82.0%
D1 C-reactive protein (mg/l)	1435	775	54.0%
D2 C-reactive protein (mg/l)	1435	674	47.0%
D3 C-reactive protein (mg/l)	1435	640	44.6%
D4 C-reactive protein (mg/l)	1435	520	36.2%
D5 C-reactive protein (mg/l)	1435	422	29.4%
D6 C-reactive protein (mg/l)	1435	365	25.4%
D7 C-reactive protein (mg/l)	1435	316	22.0%
TOTAL	34440	21204	61.6%



IT MUST BE DETERMINED **WHAT** YOUR STUDY POPULATION REPRESENTS

DATA **INTERPRETATION** STRONGLY **DEPENDS** ON YOUR POPULATION

WHAT CONCLUSION CAN WE MAKE?

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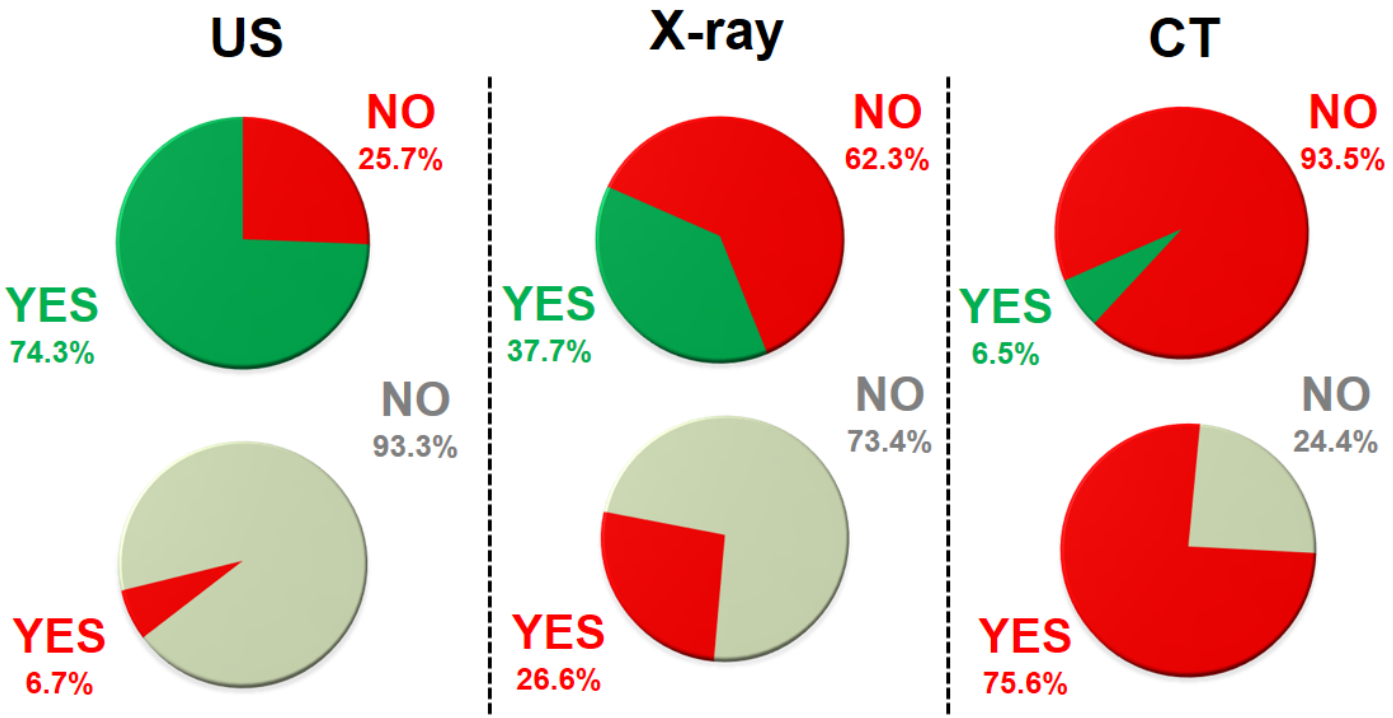
THE INCIDENCE RATE OF **PLEURAL FLUID** IN ACUTE PANCREATITIS



Severity and mortality with (yes) or without (no) pleural complications

	MILD	MOD	SEV	MORT
YES	39.1%	47.8%	13.0%	33.0%
NO	63.0%	28.9%	8.1%	0

	MILD	MOD	SEV	MORT
YES	28.6%	41.1%	30.4%	58.8%
NO	64.3%	27.9%	7.8%	0

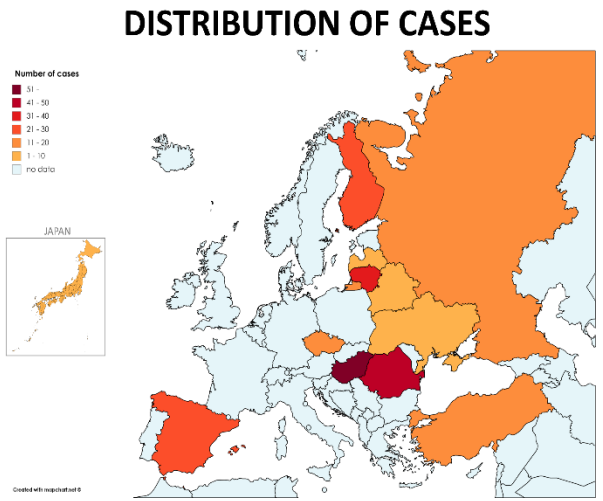
	MILD	MOD	SEV	MORT
YES	14.3%	61.7%	25.0%	43.0%
NO	33.3%	55.6%	11.1%	0

SAME COHORT
DIFFERENT METHODS
DIFFERENT RESULTS

BECAUSE OF THE
DIFFERENCES
BETWEEN THE STUDY
POPULATION!

SUPPLEMENTARY FIGURES

CENTRES



SFig1

QUALITY

DATA QUALITY OF INVESTIGATED PARAMETERS

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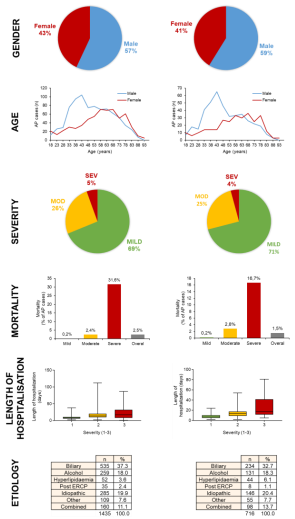
SFig2

POPULATION



SFig3

THE STYLE OF PUBLICATION

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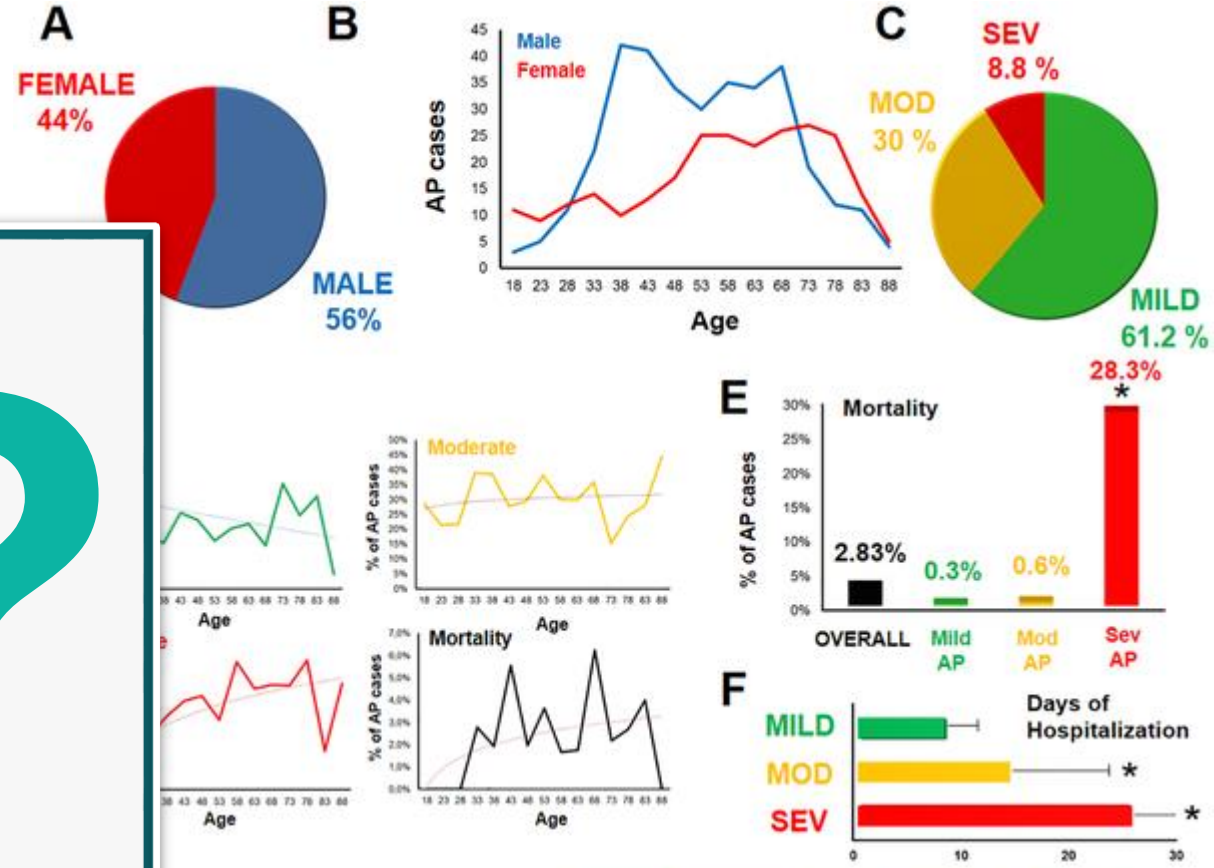
MAJOR FIGURES

Factors affecting the LTBI treatment recommendation by a physician.

		Visiting the clinic (N = 609)	
	Treatment offered (N = 302)	Bivariate analysis	Multiva
Age (year), median, range	42 (21–62)	0.94 (0.92–0.95)	0.975 (
Gender, female No (%)	210 (69.5)	1.69 (1.21–2.37)	1.00 (
BMI (kg/m^2), median (IQR)	22 (20.8–24.7)	0.92 (0.84–0.97)	0.98 (
Never smoker[a]	228 (84.1)	2.05 (1.36–3.09)	1.12 (
HTN	18 (6.0)	0.52 (0.28–0.95)	0.92 (
DM	12 (4.0)	1.37 (0.56–3.30)	
Profession			
Administrative	38 (12.6)	reference	re
Technician[b]	23 (7.6)	1.79 (0.93–3.47)	1.27 (
Health aid[c]	97 (32.1)	2.28 (1.42–3.64)	1.70 (
Physician	25 (8.3)	2.38 (1.19–4.53)	1.86 (0.90–3.85)
Nurse	119 (39.4)	5.23 (3.19–8.59)	3.43 (1.88–6.28)
Working duration, month, median (IQR)	237.4 (103.5–296.8)	0.99 (0.99–1.00)	
IFN-γ (TB Ag-Nil) concentration (IU/mL; median, IQR)	2.385 (0.878–5.865)	0.99 (0.97–1.02)	

?



	number	%	MALE	FEMALE	MILD	MOD	SEV
Biliary	263	43.83%	31.94%	58.87%[a]	64.26%	28.52%	7.22%
Alcohol	102	17.00%	27.16%[b]	4.15%	61.76%	30.39%	7.84%
Alcohol + High fat	57	9.50%	11.94%[c]	6.42%	57.89%	29.82%	12.28%
Idiopathic	98	16.33%	16.12%	16.600%	62.24%	28.57%	9.18%
Hyperlipidaemia	37	6.17%	8.06%[d]	3.77%	32.43%[f]	48.65%[g]	18.92%[h]
Post ERCP	22	3.67%	1.79%	6.04%[e]	68.18%	22.73%	9.09%
Other	21	3.50%	2.99%	4.15%	66.67%	28.57%	4.76%
	600	100,00%					

TITLE

ABSTRACT

INTRODUCTION

METHODS

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TITLE

- **Avoid**: „chatacterization…., effects of…, investigation of…
- The strongest **short** statement

TITLE

ABSTRACT

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CONCLUSIONS

DISCUSSION

- Discuss **all the relevant articles** which support or are against your results
- **AVOID:** repeating the result session
- **Do not describe** important knowledge which is **not relevant** to understand the study
- describe the **limitations**
- Highlight the **usefulness** of the result

TITLE

ABSTRACT

INTRODUCTION

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INTRODUCTION

- Two or three relevant points which **introduce the necessity** of the **work**
- **Do not describe** important knowledge which is **not relevant** to understand the study

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TITLE

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ABSTRACT

- **SHORT**
- INFORMATIVE
- VERY MUCH DEPENDS ON THE JOURNAL STYLE

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RESEARCH ARTICLE

Prospective, Multicentre, Nat
Data from 600 Cases of Acut

**Andrea Párniczky[1], Balázs Kui[2], Andrea Szentesi[2,3], Anit
Dóra Mosztbacher[5], József Czimmer[6], Patrícia Sarlós[6], J
Áron Vincze[6], Anita Illés[6], Imre Szabó[6], Gabriella Pár[6], Ta
Zoltán Szepes[2], Zoltán Rakonczay[2], Ferenc Izbéki[7], Judit
János Novák[8], Stefan Crai[8], István Hritz[9], Csaba Góg[10], J
Petra Golovics[12], Márta Varga[13], Barnabás Bod[14], József
Müller[3], Zsuzsanna Papp[3], Miklós Sahin-Tóth[16], Péter He
Hungarian Pancreatic Study Group[¶]**

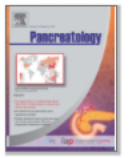
1 Heim Pál Children's Hospital, Budapest, Hungary, 2 First Departm
Szeged, Hungary, 3 Institute for Translational Medicine, University o
Department of Surgery, Semmelweis University, Budapest, Hungary,
János Hospital of County Tolna, Szekszárd, Hungary, 6 First Departı
Pécs, Hungary, 7 Szent György University Teaching Hospital of Cou
8 Pándy Kálmán Hospital of County Békés, Gyula, Hungary, 9 Bács
Hospital, Kecskemét, Hungary, 10 Healthcare Center of County Cso
Abaúj-Zemplén County Hospital and University Teaching Hospital, M
Medicine, Semmelweis University, Budapest, Hungary, 13 Dr. Réthy
14 Dr. Bugyi István Hospital, Szentes, Hungary, 15 Bajcsy-Zsilinszk
16 Department of Molecular and Cell Biology, Boston University Hen
Medicine, Boston, United States of America, 17 Hungarian Academy
Momentum Gastroenterology Multidisciplinary Research Group, Sze

¶ The complete membership of the author group can be found in the A
* hegyi2009@gmail.com

ELSEVIER

Pancreatology

Volume 19, Issue 4, June 2019, Pages 488-499



Antibiotic therapy in acute pancreatitis: From global overuse to evidence based recommendations

Andrea Párniczky [a, b, 1], Tamás Lantos [c, 1], Eszter Margit Tóth [d, e, 1], Zsolt Szakács [a], Szilárd Gódi [f], Roland Hágendorn [g], Dóra Illés [e], Balázs Koncz [e], Katalin Márta [a], Alexandra Mikó [a, h], Dóra Mosztbacher [a, i], Balázs Csaba Németh [e, bk], Dániel Pécsi [a], Anikó Szabó [a], Ákos Szücs [j], Péter Varjú [a], Andrea Szentesi [a, e], Erika Darvasi [e] … Péter Hegyi [a, e, h, bk]

Show more

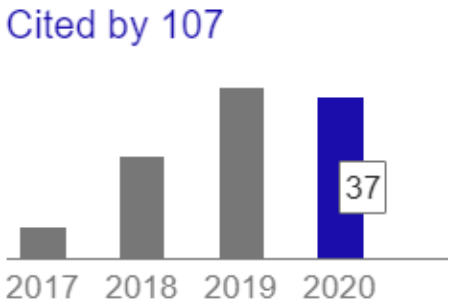
Multiple Hits in Acute Pancreatitis: Components of Metabolic Syndrome Synergize Each Other's Deteriorating Effects

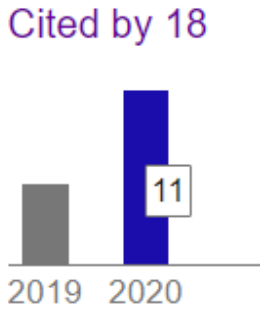
Andrea Szentesi[1,2,3], Andrea Párniczky[1,4], Áron Vincze[5], Judit Bajor[5], Szilárd Gódi[6], Patricia Sarlós[5], Noémi Gede[1], Ferenc Izbéki[7], Adrienn Halász[7], Katalin Márta[1], Dalma Dobszai[1,3], Imola Török[8], Hunor Farkas[8], Mária Papp[9], Márta Varga[10], József Hamvas[11], János Novák[12], Artautas Mickevicius[13,14], Elena Ramirez Maldonado[15], Ville Sallinen[16], Dóra Illés[2], Balázs Kui[2], Bálint Erőss[3], László Czakó[2], Tamás Takács[2] and Péter Hegyi[1,2,6,17] on behalf of the Hungarian Pancreatic Study Group

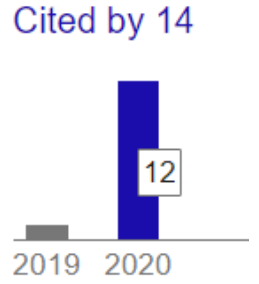
[1]Institute for Translational Medicine, Szentágothai Research Centre, Medical School, University of Pécs, Pécs, Hungary

A Multicenter, International Cohort Analysis of 1435 Cases to Support Clinical Trial Design in Acute Pancreatitis

Nelli Farkas[1,2], Lilla Hanák[2], Alexandra Mikó[2,3], Judit Bajor[3], Patricia Sarlós[3], József Czimmer[3], Áron Vincze[3], Szilárd Gódi[3], Dániel Pécsi[2,3], Péter Varjú[2,3], Katalin Márta[2], Péter Jenő Hegyi[2,3], Bálint Erőss[2,3], Zsolt Szakács[2], Tamás Takács[4], László Czakó[4], Balázs Németh[4], Dóra Illés[4], Balázs Kui[4], Erika Darvasi[4], Ferenc Izbéki[5], Adrienn Halász[5], Veronika Dunás-Varga[5], László Gajdán[5], József Hamvas[6], Mária Papp[7], Ildikó Földi[7], Krisztina Eszter Fehér[7], Márta Varga[8], Klára Csefkó[8], Imola Török[8], Farkas Hunor-Pál[9], Artautas Mickevicius[10], Elena Ramirez Maldonado[11], Ville Sallinen[12], János Novák[13], Ali Tüzün Ince[14], Shamil Galeev[15], Barnabás Bod[16], János Sümegi[17], Petr Pencik[18], Attila Szepes[19], Andrea Szentesi[2,4], Andrea Párniczky[2,20,21] and Péter Hegyi[2,3,4,22*] on behalf of the Hungarian Pancreatic Study Group







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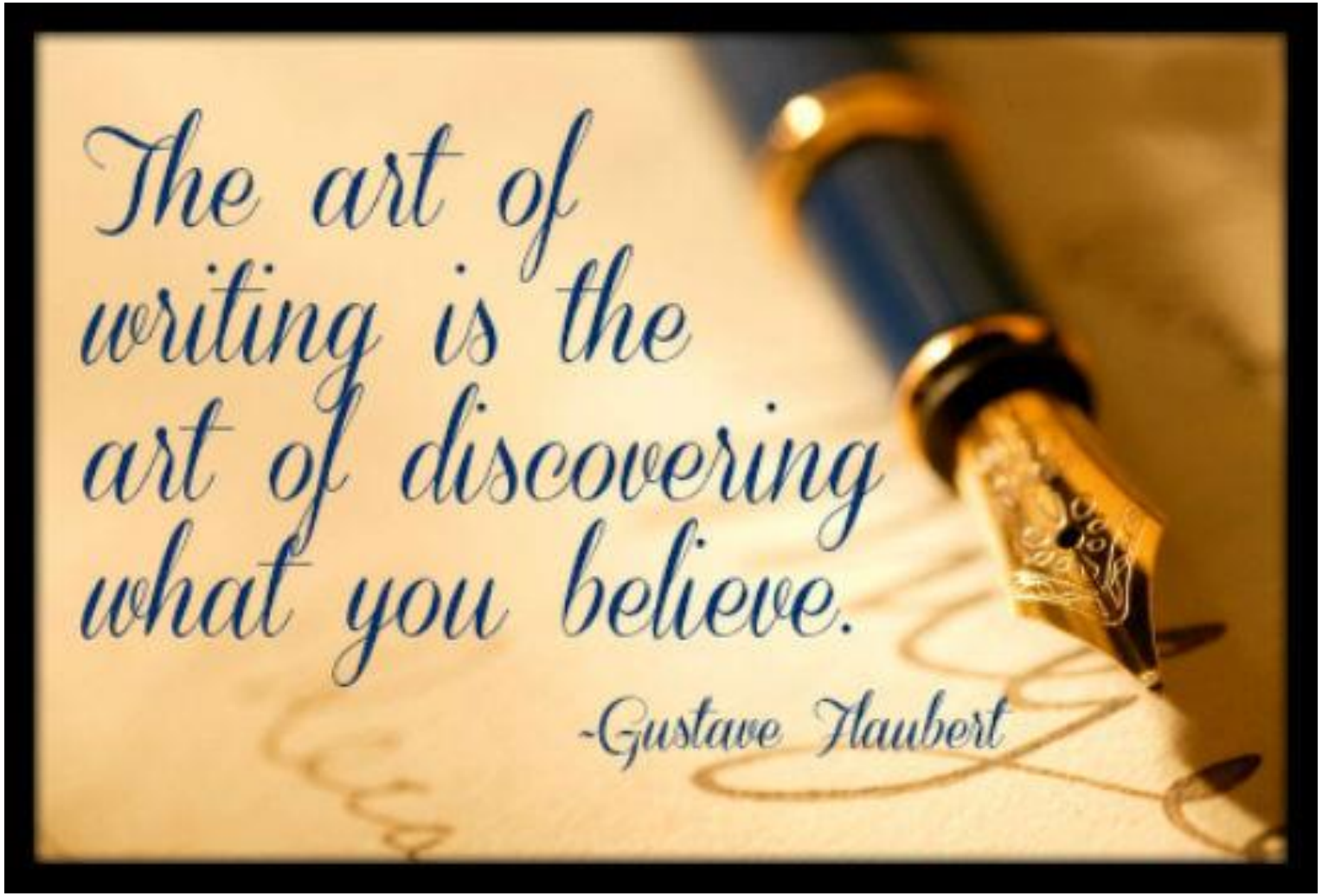


Thank you for your attention!

Péter Hegyi

p.hegyi@tm-centre.org

www.tm-centre.org

Data Analysis: Process of Data Retrieval

Klementina Ocskay
Pécs, Hungary

Data retrieval

1. **What do I need? – choosing data to retrieve** (researcher)
   - Aims
   - Variables needed
   - Time period of data collection
2. **Strategic consultation** (researcher, consultant, coordinator, IT, statistician)
   - Aims, availability of variables, derived variables, affected forms
   - Format of database, steps of registry analysis
3. **Data retrieval phase**
   - Internal controlling (IT, registry coordinator, data management)
   - Researcher controlling (researcher)

Asking the right questions

The registry is <u>SUITABLE</u> for analyzing

- epidemiology
- risk factors
- course of the disease
- associations

The registry is <u>SUITABLE</u> for

- establishing protocols
- calculating sample size for clinical trials

The registry is <u>NOT SUITABLE</u> for discovering

- causality
- differences between therapies or interventions

Aims with examples

1. Do the **components of metabolic syndrome** have an independent effect on the outcome of AP?
2. To investigate current clinical practices and develop recommendations for **antibiotic treatment** in AP – clinical parameters used in decision making.
3. How do **age and comorbidities** modify the outcomes in AP?
4. The use of **on-admission laboratory parameters** for **prognostic scores** in AP.

Which variables to use?

Q: Do the **components of metabolic syndrome** have an independent effect on the outcome of AP?

A: Demographic data, etiology, information on the 4 components to be examined (OB, HT, HL, DM), severity, mortality, complications, LOS.

(New-onset DM informtaion should be checked in the epicrisis description of the cases. BMI can be calculated - height and weight available, complications should be evaluated.)

Szentesi A, et al. Multiple Hits in Acute Pancreatitis: Components of Metabolic Syndrome Synergize Each Other's Deteriorating Effects. *Front Physiol*. 2019;10:1202.

Which variables to use?

Q: To investigate current clinical practices and develop recommendations for antibiotic treatment in AP – clinical parameters used in decision making.

A: parameters including age, gender, severity, mortality, complications, LOS, details about AB therapy (starting date, type of AB) and biomarkers of infection

(Type of AB and presence and source of infection should be checked in the available text data as well.)

Párniczky A et al. Antibiotic therapy in acute pancreatitis: From global overuse to evidence based recommendations. Pancreatology. 2019 Jun;19(4):488-499.

Choosing outcomes

Hard outcomes should be preferred! (e.g. mortality, severity, LOH)

Choose the patient important outcome! (e.g. QoL, pain)

Define them clearly! (e.g. On-admission /first 24 hours/ CRP)

Tip: Always decide your question first and list all the necessary outcomes.

Database

	0: BMI under 30 1: BMI 30 or above	0: no 1: yes (Szakács Zsolt CCI információja alapján, EASY-ben külön megnézve)	0: no 1: yes (Regiszterben bejelölt hyperlipidaemia + mért HTG nagyobb, mint 1.7 mmol/l)	0: no 1: yes			1:under 18.5 2:18.5-24.99 3:25-29.99 4:30.00 and above			0: no 1: yes	0: no 1: yes	year	1: no data, numeric	999999:no data, 1: male 2: female	999999: no data 1: mild 2: moderate 3: severe	999999: no data 0: no 1: yes	999999: no data, numeric	999999: no data 0: no 1: yes	999999: no data 0: no 1: yes
	REGISTRY PARAMETERS												PERSONAL		OUTCOME			COMPLICATIO	
Registry_code	Obesity	Hypertension	Hyperlipidemia	Diabetes	MetS factor combinations	Number of factors	BMI categories 4	Single AP, RAP, CP	Institute	Import	Only_for_epidemiology_and_genetic_analysis	Year_of_admission	Age_at_the_time_of_admission	Gender	Severity	Mortality	Length_of_hospitalization_days	Local_pancreatic_complications	Fluid_collection
1914	0	0	0	0	No MS factors	No factors	2	single AP	Hu, Debrec	0	0	2017	41	1	2	0	17	1	0
1913	0	0	0	0	No MS factors	No factors	2	single AP	Hu, Debrec	0	0	2017	75	1	1	0	6	0	0
1891	1	1	0	1	HT+OB+DM	3 factors	4	CP	Hu, Debrec	0	0	2017	82	2	3	0	21	1	1
1890	1	1	1	0	HT+OB+HL	3 factors	4	single AP	Hu, Debrec	0	0	2016	48	2	3	1	7	1	1
1888	0	0	0	0	No MS factors	No factors	3	single AP	Hu, Pécs, F	0	0	2017	52	2	1	0	12	0	0
1887	0	0	0	0	No MS factors	No factors	3	single AP	Hu, Pécs, F	0	0	2017	29	2	1	0	5	0	0
1882	0	0	0	0	No MS factors	No factors	1	single AP	Hu, Debrec	0	0	2017	20	1	1	0	4	0	0
1881	1	0	0	0	OB	1 factor	4	single AP	Hu, Debrec	0	0	2017	87	2	1	0	8	0	0
1880	0	0	0	0	No MS factors	No factors	2	single AP	Hu, Debrec	0	0	2017	45	1	1	0	9	0	0
1879	0	0	0	0	No MS factors	No factors	2	single AP	Hu, Debrec	0	0	2017	58	1	1	0	8	1	0
1868	1	0	0	0	OB	1 factor	4	single AP	Hu, Debrec	0	0	2017	21	2	1	0	8	0	0

Database

	0: BMI under 30 1: BMI 30 or above	0: no 1: yes (Szakács Zsolt CCI információj a alapján, EASY-ben külön megnézve)	0: no 1: yes (Regisztrb en bejelölt hyperlipida emia + mért HTG nagyobb, mint 1.7 pirossal)	0: no 1: yes			1:under 18.5 2:18.5-24.99 3:25-29.99 4:30.00 and above			0: no 1: yes	0: no 1: yes	year	1: no data, numeric	999999:no data, 1: male 2: female	999999: no data 1: mild 2: moderate 3: severe	999999: no data no yes	999999: no 0: 1:	999999: no data, numeric	999999: no data no yes	999999: no data 0: no 1: yes
REGISTRY PARAMETERS													PERSONAL		OUTCOME				COMPLICATIO	
Registry_code	Obesity	Hypertension	Hyperlipidemia	Diabetes	MetS factor combinations	Number of factors	BMI categories 4	Single AP, RAP, CP	Institute	Import	Only_for_epidemiology_and_genetic_analysis	Year_of_admission	Age_at_the_time_of_admission	Gender	Severity	Mortality	Length_of_hospitalization_days	Local_pancreatic_complications	Fluid_collection
1914	0	0	0	0	No MS factors	No factors	2	single AP	Hu, Debrec	0	0	2017	41	1	2	0	17	1	1
1913	0	0	0	0	No MS factors	No factors	2	single AP	Hu, Debrec	0	0	2017	75	1	1	0	6	0	0
1891	1	1	0	1	HT+OB+DM	3 factors	4	CP	Hu, Debrec	0	0	2017	82	2	3	0	21	1	1
1890	1	1	1	0	HT+OB+HL	3 factors	4	single AP	Hu, Debrec	0	0	2016	48	2	3	1	7	1	1
1888	0	0	0	0	No MS factors	No factors	3	single AP	Hu, Pécs, I	0	0	2017	52	2	1	0	12	0	0
1887	0	0	0	0	No MS factors	No factors	3	single AP	Hu, Pécs, I	0	0	2017	29	2	1	0	5	0	0
1882	0	0	0	0	No MS factors	No factors	1	single AP	Hu, Debrec	0	0	2017	20	1	1	0	4	0	0
1881	1	0	0	0	OB	1 factor	4	single AP	Hu, Debrec	0	0	2017	87	2	1	0	8	0	0
1880	0	0	0	0	No MS factors	No factors	2	single AP	Hu, Debrec	0	0	2017	45	1	1	0	9	0	0
1879	0	0	0	0	No MS factors	No factors	2	single AP	Hu, Debrec	0	0	2017	58	1	1	0	8	1	0
1868	1	0	0	0	OB	1 factor	4	single AP	Hu, Debrec	0	0	2017	21	2	1	0	8	0	0

Always keep the original database UNCHANGED!!!

Technical controlling:

- All needed parameters are in the database in the appropriate format?
- Source of errors (if any)? Missing values? Text information?

Researcher controlling:

- Are all requested parameters included?
- Are there any extreme or life-incompatible values?

Forming groups

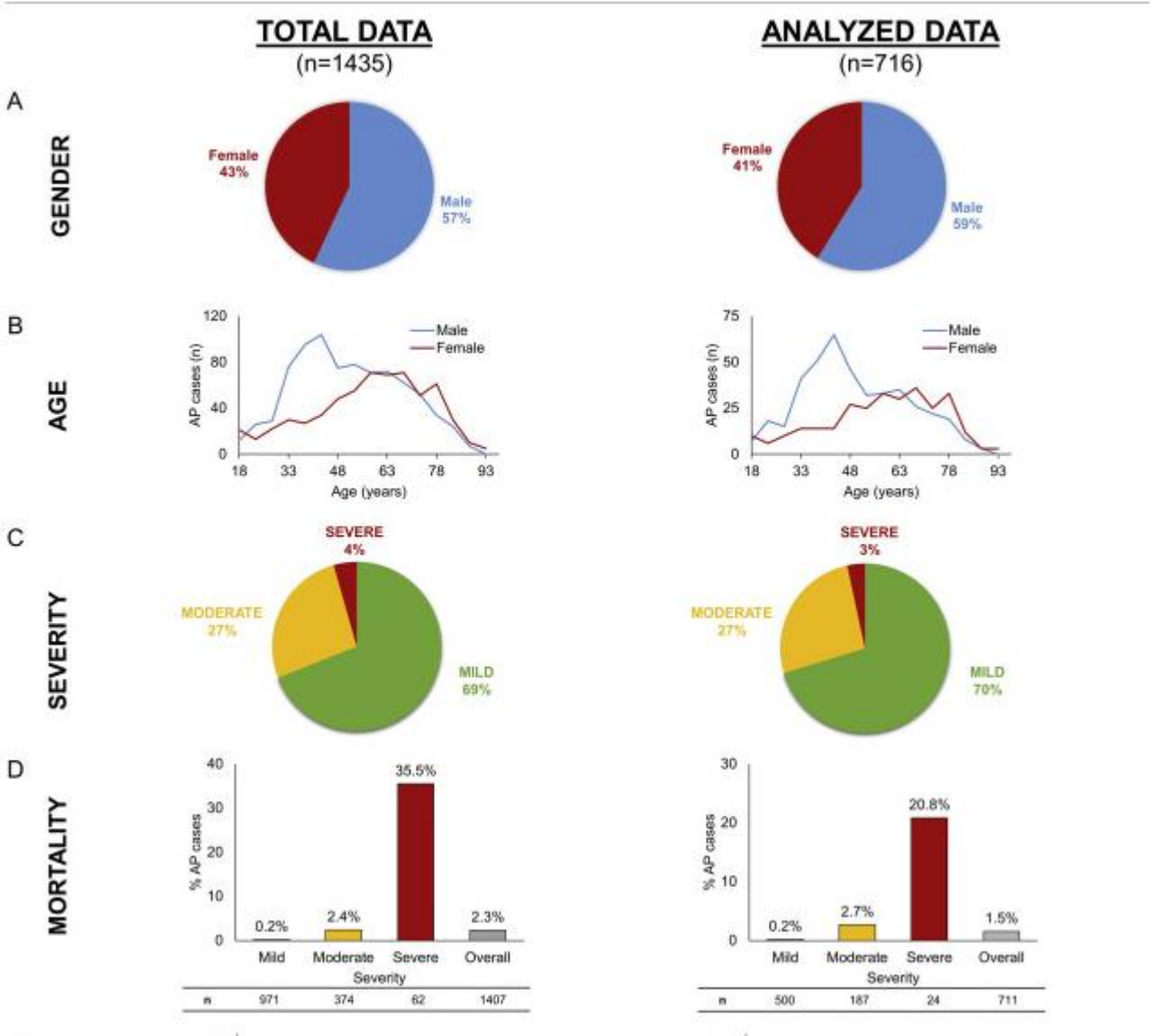
Total cohort	Obesity (n=1257)		Hypertension (n=1127)		Hyperlipidemia (n=1036)		Diabetes (n=1257)	
	NON-OB	OB	NON-HT	HT	NON-HL	HL	NON-DM	DM
1257	886	371	451	676	687	349	1051	206
	70.5%	29.5%	40.0%	60.0%	66.3%	33.7%	83.6%	16.4%

Group	Triglyceride (mmol/l)	AP % (n)	CP % (n)
1	<1.7	22.3 (475)	6.1 (475)
2	1.7-2.19	25.9 (54)	7.4 (54)
3	2.2-5.59	34.2[a] (73)	0[b] (73)
4	5.6-11.29	33.3 (27)	0 (27)
5	11.3-22.59	18.8 (16)	6.3 (16)
6	≥22.6	33.3 (36)	0 (36)

Should be considered:

- **group sizes**
- **availability, quality of data in the groups**

Represantiveness



Should be considered:

representativeness of the analysed population vs. total cohort

Mosztbacher D et al. Hypertriglyceridemia-induced acute pancreatitis: A prospective, multicenter, international cohort analysis of 716 acute pancreatitis cases. Pancreatology. 2020 Jun;20(4):608-616.

Steps of data analysis

1. Clinical question(s)
2. Forming groups
3. Representativeness
4. Data availability, data quality
5. Analysis of main outcomes in the groups
6. Hypotheses, statistical analysis
7. Discussion of the findings
8. Decision on additional analyses
9. Hypotheses, detailed statistical analyses

TAKE HOME MESSAGE

- Ask the **right question**, use the **right data**!
- **Quality check** is necessary before analysis!
- Go through **all steps** (groups, representativity etc.)!
- Always keep the **original database** untouched!

Thank you for your attention!

www.tm-centre.org

Data analysis: Statistics

Dávid Németh
Centre for Translational Medicine

2nd October, 2019

University of Pécs
Pécs

Now what?

After data extraction…

WHAT TO DO NEXT?

FORM GOUPS

BUT HOW?

UNDERSTAND YOUR RESULTS

WORK TOGETHER WITH A STATISTICIAN

FORMULATE YOUR HYPOTHESES

Process after data extraction

1. Form **groups** for the analysis (if necessary).
2. Take a look at the data set and data quality. Make tables and figures about **primary and secondary outcomes**.
3. Formulate your **hypotheses**.

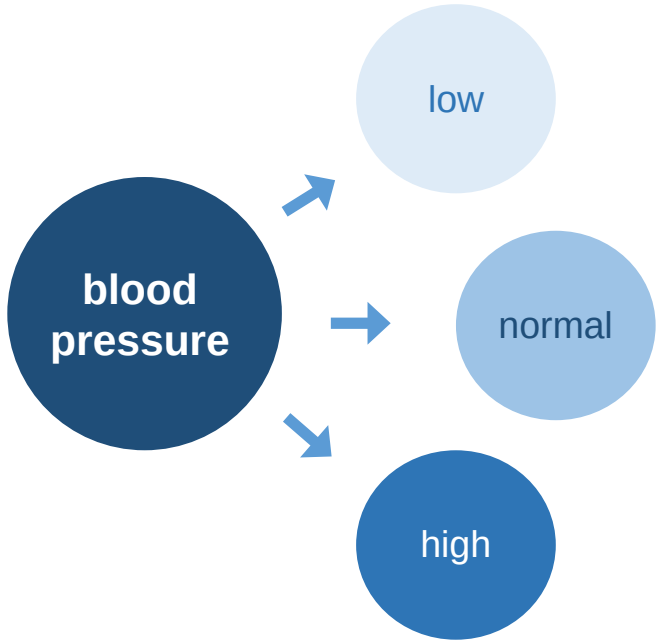
---

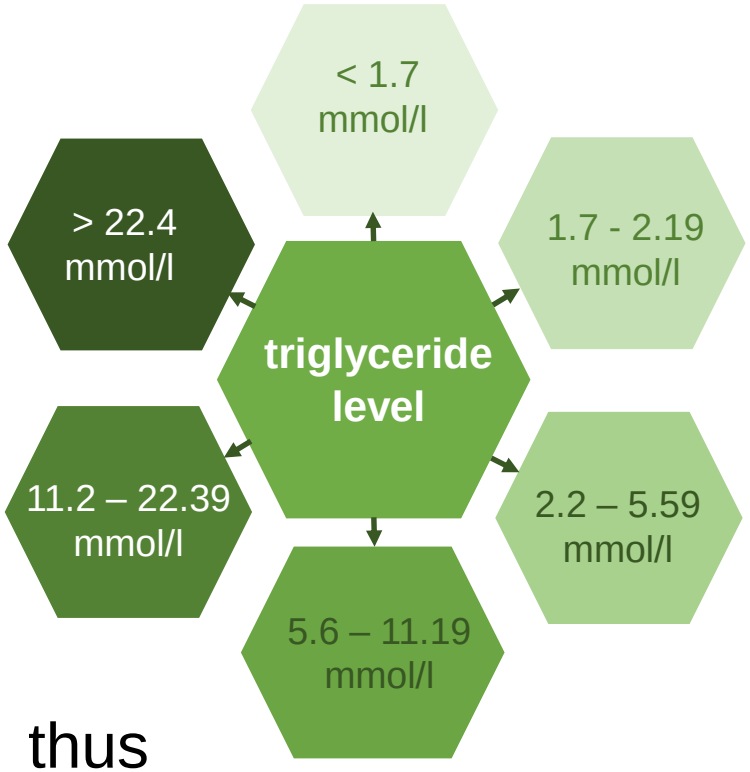
4. Perform **analysis**.
5. Understand your results. Make **further considerations** and statements. Form new hypotheses if necessary.
6. Conduct further statistical **analysis**.
7. Understand your results, start **writing your paper**.

This is the point from where a statistician SHOULD BE INVOLVED!

Opportunities to form groups

Forming groups - according to biological/medical considerations.





Grouped data has been 'classified' and thus some level of data analysis has taken place which means that the data is no longer raw → **always keep original values!**

Hypothesis

Hypothesis

an assumption about certain characteristics of a population

Null Hypothesis

there is **no effect** or **no relationship** between phenomena or populations

Alternate Hypothesis

observations are influenced by a non-random factor

Developing a hypothesis

ASK A QUESTION

The question should be focused, specific and researchable.

TAKE A LOOK AT YOUR PARAMETERS

Look for parameters according to your question.

FORMULATE YOUR HYPOTHESIS

Write your initial answer to the question in a clear sentence.

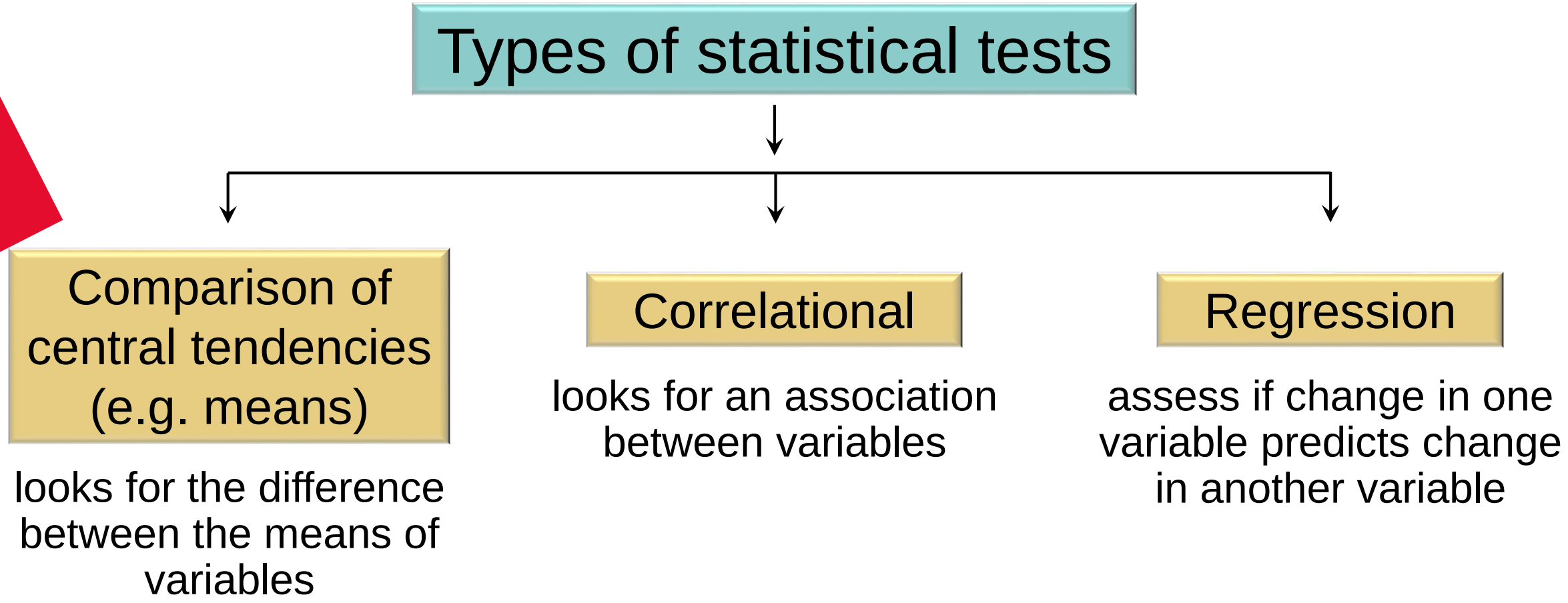
REFINE YOUR HYPOTHESIS

The hypothesis should contain: the relevant variable(s), the specific group(s), the predicted outcome.

Examples of good hypothesis

- COPD patients have higher blood pressure than the recommended value of the average population.
- Hypertension is more frequent in patients with COPD than in those without COPD.
- Hypertension predicts 5-y mortality in COPD with high accuracy.
- Hypertension is an independent predictor of 5-y mortality in COPD.

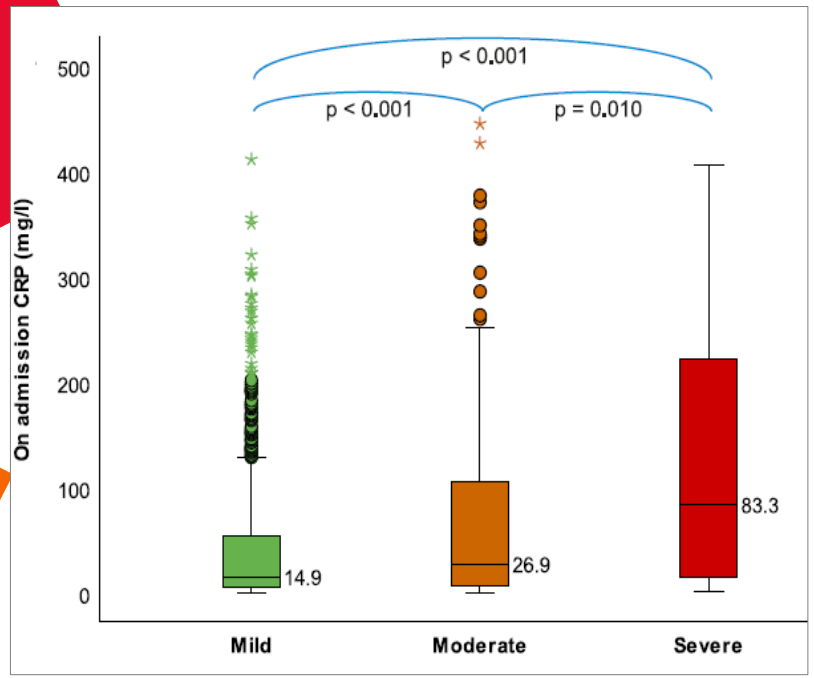
Statistical analysis – practical aspects



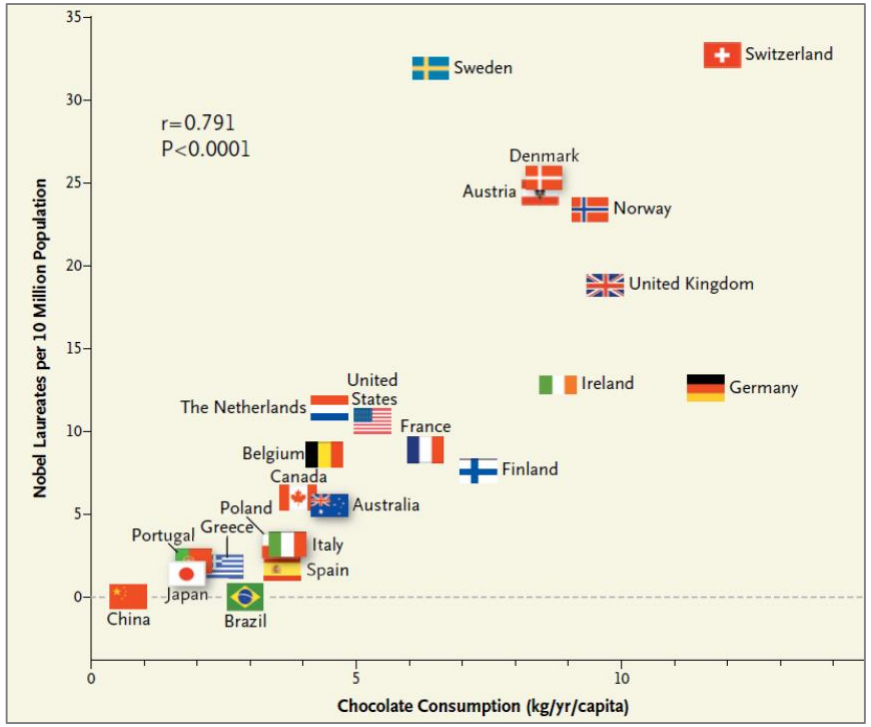
Statistical analysis – practical aspects

TRANSLATIONAL MEDICINE

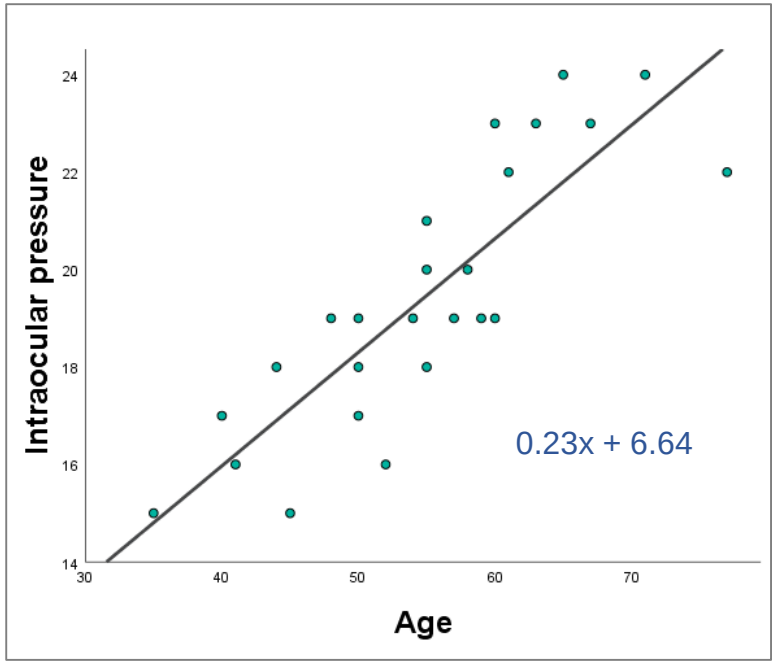
Comparison of means



Correlational



Regression



TAKE HOME MESSAGE

- A **good hypothesis** should contain the followings: the relevant variable(s), the specific group(s) and the predicted outcome!
- Researcher should keep in mind the **types of statistical tests** when formulating hypotheses!
- If any question arises regarding the data set, hypotheses or analysis always **consult with a statistician!**

Thank you for your attention!

Dávid Németh

biostatistics@tm-centre.org

www.tm-centre.org

Registries around the world

Lajos Szakó

Patient registries around the world and their purposes

Over 100 national registries

Some examples:

- Prostate Cancer Registry
- Bipolar Affective Disorder Registry
- Registry for Amputation and prostheses
- Registry for Cardiopulmonary Resuscitation
- Registry for Childhood Epilepsy
- Registry for Cystic Fibrosis

Patient registries around the world and their purposes

Registry for Amputation and Prostheses

Registry for Wilson disease

Surgery

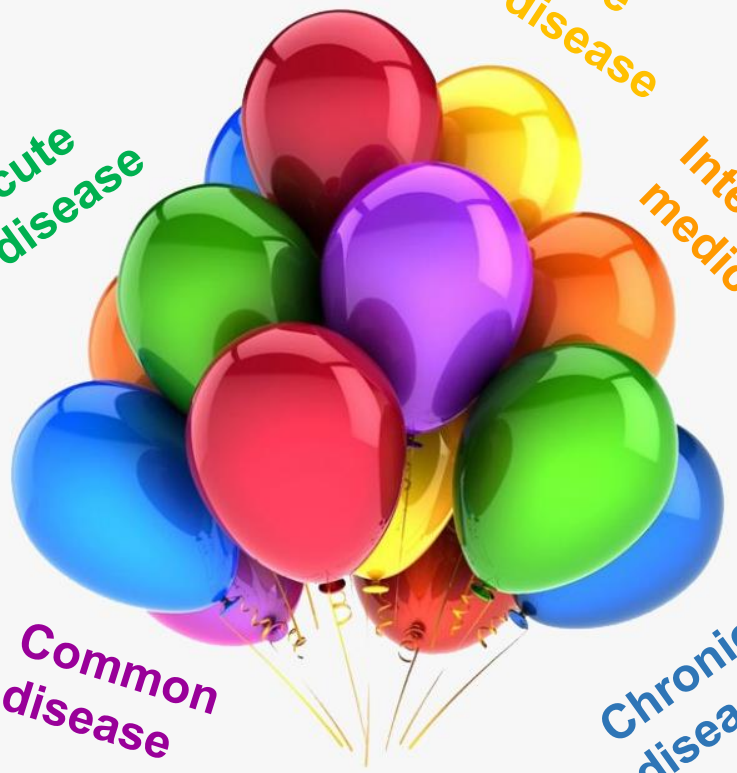
Rare disease

Registry for Cardiopulmonary Resuscitation

Acute disease

Internal medicine

Acute pancreatitis registry



Registry of Fractures

Common disease

Chronic disease

Colorectal Cancer Registry

Patient registries around the world and their purposes

National Quality Registry for Perioperative Care (SPOR)

Age, gender:
strong predictors of mortality

University hospital status, **length of stay** in post-anesthesia unit are also modifiable risk factors

SCIENTIFIC REPORTS

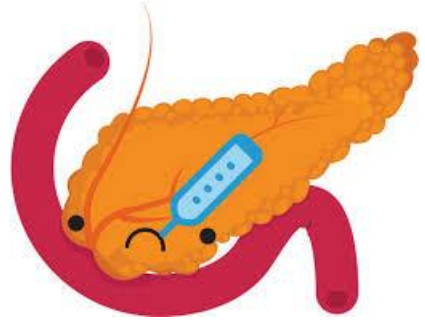
OPEN

Determinants of mortality after hip fracture surgery in Sweden: a registry-based retrospective cohort study

Received: 28 June 2018
Accepted: 6 October 2018
Published online: 24 October 2018

Patient registries around the world and their purposes

Acute Pancreatitis Registry of the Hungarian Pancreatic Study Group



Acute, possibly life-threatening disease

Quality of the healthcare

PLOS ONE

Physical examination, epigemiology, diagnostic and anamnestic data, laboratory parameters, frequency of the organ failure, conservative therapy

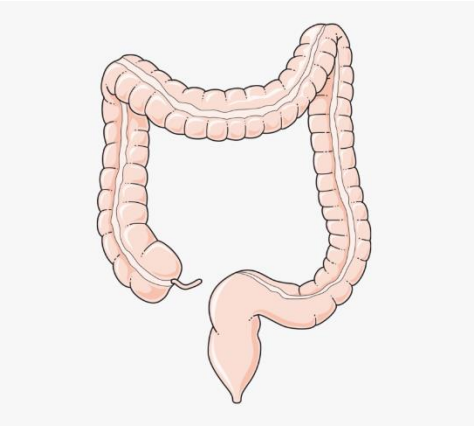
RESEARCH ARTICLE

Prospective, Multicentre, Nationwide Clinical Data from 600 Cases of Acute Pancreatitis

Andrea Párniczky[1], Balázs Kui[2], Andrea Szentesi[2,3], Anita Balázs[2], Ákos Szűcs[4], Dóra Mosztbacher[5], József Czimmer[6], Patrícia Sarlós[6], Judit Bajor[6], Szilárd Gódi[6], Áron Vincze[6], Anita Illés[6], Imre Szabó[6], Gabriella Pár[6], Tamás Takács[2], László Czakó[2], Zoltán Szepes[2], Zoltán Rakonczay[2], Ferenc Izbéki[7], Judit Gervain[7], Adrienn Halász[7], János Novák[8], Stefan Crai[8], István Hritz[9], Csaba Góg[10], János Sümegi[11], Petra Golovics[12], Márta Varga[13], Barnabás Bod[14], József Hamvas[15], Mónika Varga-Müller[3], Zsuzsanna Papp[3], Miklós Sahin-Tóth[16], Péter Hegyi[2,3,17]*, on behalf of the Hungarian Pancreatic Study Group[¶]

CrossMark

Patient registries around the world and their purposes



The Colon Cancer Family Registry Cohort (CCFRC)

Centres from **Canada, USA, Australia**

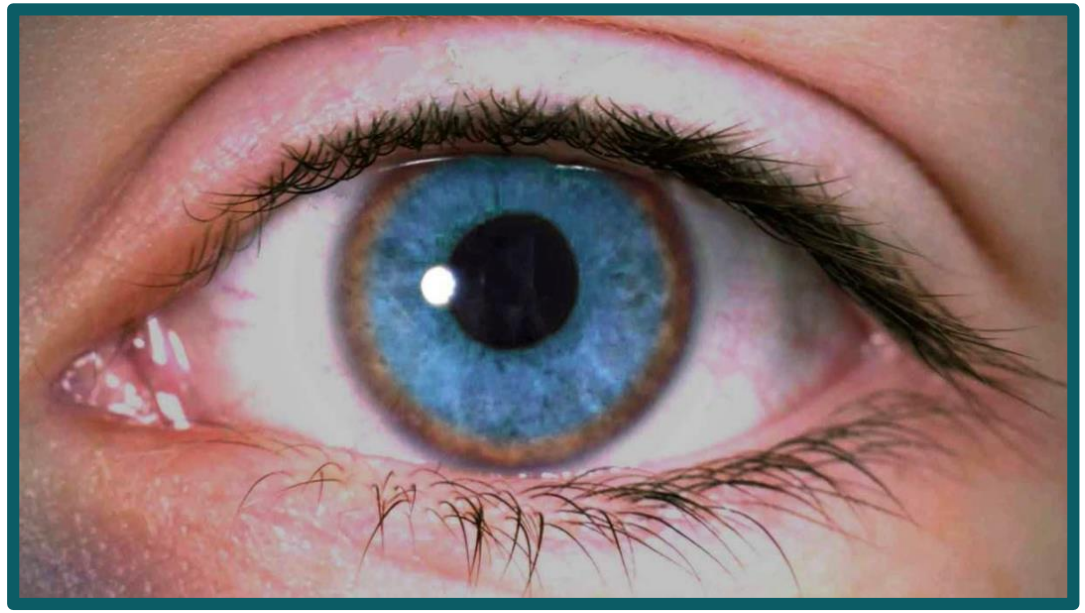
Data: Characteristics of the tumour, family history, risk factors, etc.

4-5 year follow-up

Has been used for **more than 400** peer-reviewed publications

Patient registries around the world and their purposes

Rare diseases: low prevalence (fewer than 5 individuals per 10.000)



Wilson disease

French registry of Wilson disease: epidemiological study

Motivation: examples of significant publications

Framingham Heart Study

From 1948

Prospective data collection: registry!

More than 3000 peer-reviewed studies

Heart disease, atherosclerosis, cardiovascular diseases, diet, exercise, aspirin, etc.

Patient registried around the world

TAKE HOME MESSAGE

1. International trend
2. Importance regarding knowledge, quality of healthcare

PRACTICE:
Interpretation of statistical analyses in publications from patient registries

Zsolt Szakács
Pécs, Hungary

3 Questions

Feedback presentation from 3 groups

1 Question each

Questions

1. Which prognostic factors did the study identify? Are they dependent or independent factors? Interpret the survival curves.

2. What does Fig 4 say?

3. What limitations does the study have? To which population are the findings representative?

Thank you for your participation!