The Art of Writing an Abstract

Workshop 2

Dr. Torsten Hoppe-Tichy
Dr. Gunar Stemer

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- **Introduction** and general principles
- Let‘s go to **work**! It‘s your turn!
- The example of **anti-infective drugs**

Recipe of **good study**

- Clear study question
  - Aims and objectives
  - „Small is beautiful“
- Protocol
- New **message**!
  - You should know the literature.
- Clear and valid **methods**

Methodology

About the choice of particular methods to answer a research question

Methods

Description what was actually done

Smith FJ. Conducting your pharmacy practice research Project, PP Press 2010, 2nd ed

Quantitative Studies

Goal: Quantification of phenomena

- Descriptive OR experimental

Examples

- Frequency of events
- Proportions, associations
- MUE
- RCT
- Before/after studies
- …

Qualitative Studies

Goal: Explore how? Why?

- Descriptive/exploratory/ hypothesis generating
- Exploration of processes, patterns of people's thoughts, behaviour,…
- Explanation of priorities, concerns, meanings,…

Examples of techniques

- Focus group
- Survey (+/-)

Smith FJ. Conducting your pharmacy practice research Project, PP Press 2010, 2nd ed

The **abstract**:

A **summary of points** (as of a writing) usually presented in **skeletal form**; *also*: something that summarizes or concentrates the **essentials** of a larger thing or several things

Merriam Webster Online Dictionary

- **Concise** piece of **text**
- Easy-to-read
- Requested **structure**
- **Only major issues**
- Target **audience**
- Target **language**

Your abstract = **your signature**

Category	Examples of topics
Clinical pharmacy	service evaluation, service implementation, outcome evaluation, pharmacoeconomics, drug efficacy evaluations, D&T committees,
Drug distribution	Logistics, storage conditions, ordering systems, drug distribution technology (e.g., bar code scanning, electronic cabinets, dose dispensing), home delivery, supply chain management
Drug information and pharmacotherapy	Patient education, patient knowledge, telepharmacy, drug use evaluations, adverse drug events
Production and preparation	Technology, formulation, quality control
General Management	Education, staffing, organisation, financing, services/tasks, working environment, occupational health, management theories
Pharmacokinetics and pharmacodynamics	Therapeutic drug monitoring, metabolism, interactions, genetic polymorphisms
Patient safety and risk management	Medicines reconcilliation, medication history, medication review, drug-related problems, root cause analysis
Other hospital pharmacy topics	Medical devices

Table 1: Categories for abstract submission with examples

The **storyline** of an abstract

- Once upon a time researchers belie — **Background**
- But then I thought that maybe … — **Objectives**
- So what I did was… — **Methods**
- And I‘ve discovered that … — **Results**
- Which changed the way that we … — **Conclusion**

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Basic **structure** and terminology

- **Title**: accurate, clear, concise, including as much about the context and the study aims as possible
  - no abbreviations, unfamiliar acronyms
- **Authors**: only those who significantly contributed (e.g., design, practical work, data gathering, analysis, writing)

Background:
- Why did you start?
- Current knowledge, state-of-the art, described concisely

Purpose:
- Study aim – What did you investigate?

Materials and methods:
- Concise description of the design and the context/setting of the study, types of patients, description of the intervention(s)
- Not too much, not too little information

Results:
- What did you find?
- Main results, not just in subjective terms, but also underpinned with real data
- Most important data, findings on which the conlcusion is based (!!)
- Avoid tables and figures

Conclusions:
- What does it mean? Why do you think your findings are important
- Reasonable and supportive (by findings) conclusions only
- Avoid generalisations

Checklist prior to submission

- ☑ Abstract adheres to EAHP guidelines
- ☑ ‚My results are in line with study objectives‘
- ☑ ‚My conclusions are supported by data presented in the abstract‘
- ☑ Word count: 300 max.
- ☑ Language, grammar and spelling checked by peers

- Let‘s go to **work**! It‘s your turn!

Group work

- **Task:** Read and discuss both abstracts with your neighbour or in a group and try to 'pimp' it.
  - Think about suggestions for potential improvements! (Structure, Content, …)

Abstract 1

Safety of pneumology prescriptions

Background

When the patient is hospitalized there are some dangerous situations that can affect his safety

Purpose

Identify the risk associated with medication in hospitalized patient in a pneumology plant.

Materials and Methods

This is a prospective study in a 450-bed hospital. Patients admitted in a pneumology plant were followed during one week.The data, obtained from the medical prescription, were: diagnostic, allergies, dose, abbreviations, active principle, drugs prescribes as a fraction of the vial, conditional prescriptions and use of high risk drugs

Safety of pneumology prescriptions

Results

During the study 18 patients were admitted in the pneumology service and they received 456 lines of treatment. Allergies and diagnostics were indicated in every treatment and abbreviations were used for international unit of measure but never for the active principles. Trade names were used in 301(66%) drugs, dose was absent in 112(24,6%) lines of treatment and the measure units in 109(23,9%) of them. Drugs prescribed as a fraction of the vial to be dosed by the nurse were 33(7,2%):11 salbutamol, 6 morphine, 5 furosemide, 5 ipratropium, 3 amikacin, , 2 potassium chloride and 1 mesna. There were 36(7, 9%) high risk drugs: enoxaparin, morphine and potassium chloride. Senventeen(3, 7%) lines were prescriptions determined for the situation of the patient and according to the nurse point of view: 'if fever', 'if pain', 'if breathlessness' or 'if agitation'.

Safety of pneumology prescriptions

Conclusions

Trademarks are used in 66% of drugs instead of the nonproprietary designation that isn't indicated in 23,9%. This is the minimal information about the drug to ensure the patient safety. The risk of drugs associated error is higher when the dose is only a part of the vial and the nurse must divide it(7,2%), in conditional prescriptions (3,7%) and in high-risk drugs(8%). Prescription, transcription, dispensation and administration should be carefully developed

Safety of pneumology prescriptions

Potential improvements:

- Background too general; When thinking about dangerous situation you don't think primarily about writing problems in the charts, more about wrong knee surgery or similar
- Plant vs. ward – word choice?
- One week observational study
- Definition of high-risk drug?
- How is risk defined in the purpose? Only the prevalence of high risk drugs? What is defined as "bad practice"? What is good and bad?
- Actually, it is a prevalence study of "bad practices", but no connection to real risks or real errors is being presented, as stated in the purpose. These are only sources of errors, which could be interesting.
- The conclusion could be improved, as results are basically repeated. There is no information about what these results mean to the furture, or to the daily practice on the ward? Or what the pharmacist can do to improve these practices?
- Could be a before and after study, and this is only the baseline assessment, the intervention could be awareness training on error sources and avoidance of unclear writing etc.

Abstract 2

Discrepancies in drug allergies record in the computerised prescription order entry system

Background

Modules detection and warning of drug allergies is one of the brackets for the prescription offered by prescrip- tion order entry systems (CPOE). This tool is an important aid in order to prevent potentially medication errors. However, there aren't studies that analyse the proper use of these mod-ules by the physicians.

Purpose

To quantify and analyse the discrepancies drug allergy registered in CPOE and in admission and discharge patients records.

Discrepancies in drug allergies record in the computerised prescription order entry system

Materials and methods

On day cross-sectional study in a hospital with 1000 beds. The CPOE provides register patient allergies and which will be saved in the pharmacotherapeu- tic profile for future admission. Allergies can be inserted and updated in the system by physicians. The pharmacist com- pared the allergy registered in the discharge and admissionrecords of all hospitalised patients with the information included in CPOE. The number and type of discrepancies in the drug allergy record was analysed.

Discrepancies in drug allergies record in the computerised prescription order entry system

Results

A total of 803 hospital admissions were reviewed. 11.98% (67) of patients records hadn't any information regard- ing to history of drug allergies. 13.7% (101) from the 736 remaining patients had allergies to some medication. 127 dis- crepancies were found that affected to 85% (86) of patients with drug allergies. 81.9% (104) of discrepancies were due to allergies collected in medical record but not registered in the CPOE, 10.2% (13) was included in the CPOE but not in the medical record and 7.9% (10) were incorrectly registered in the CPOE. The main drug groups involved in the discrepan- cies were: allergy to betalactams (25.2%), Non-steroidal anti- inflammatory drug (7.8%) and sulfonamides (7.1%).

Conclusions

Discrepancies were found in 85% of patients with drug allergies, mainly affecting the betalactam group.

Discrepancies in drug allergies record in the computerised prescription order entry system

Potential improvements:

- Unfamiliar words (brackets, etc.)
- Grammar! Hard to understand due to bad writing.
- One day study? 803 admission in one day in a 1000 bed hospital?
- Use of decimals
- Does 'no information' mean – truly no allergy or no documentation in the system? What about verification of allergy? Both information sources, the CPOE and the medical chart, could be wrong.
- In the method section: no word about comparison of CPOE information to medical record (presumably paper based), only in the results section
- Conclusion in line with purpose, true, but what clinical implication does this have? What is the pharmacist's role? Verification? Check? How many patients received drugs that they have a registered allergy on?
- Apart form a very confusing writing up and some contradiction, the data is actually very thin and the implication for practice is not clear, neither is the role of the pharmacist.