

# Artikelskrivning

## tips & tricks

Jakob Burcharth, Kristoffer Andresen, Jacob Rosenberg



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# Agenda

- **hvorfor skrive artikler?**
- **artikeltyper og artikelopbygning**
- **basic facts om systematiske reviews og meta-analyser**
- **basal statistik**
- **hvordan gør vi helt konkret**
  - (manuscript mapping)
- **publikationsprocessen**
- **hvordan kommer du selv videre**

# www.forskerkurser.dk

- 1. Start og styring (1 dag)**
- 2. Skriv og publicer (1 dag)**
- 3. Praktisk statistik (1 dag)**
- 4. Systematisk review og meta-analyse (1 dag)**
5. Praktisk epidemiologi (online)
6. Praktisk artikelskrivning (online)
7. Spørgeskemaer (online)
8. Kvalitativ forskning (online)



# Hvorfor artikler ?

- **kommunikation**
- **uddannelse**
- **CV & ansættelser**
- **særligt koncept**
  - **manuscript mapping**
  - **mind-to-paper (diktering)**

# hvad bliver man vurderet på efter en forsknings-ansættelse?

- **publikationslisten**
- det er "ligeegyldigt", om man har været god til at lave kaffe eller har været socialt velfungerende

# Artikeltyper og opbygning



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# Danish Medical Journal

[www.danmedj.dk](http://www.danmedj.dk)

**engelsk**

- **original artikler**
- **protokol artikler**
- **systematiske reviews**
- **kliniske guidelines**
- **DMSc afhandlinger**
- **Ph.D. afhandlinger**



# Ugeskrift for Læger

[www.ugeskriftet.dk](http://www.ugeskriftet.dk)

dansk

- leder (redaktører og inviterede)
- **status artikler**
- **kasuistikker**





# Evidenspyramiden



# TIMRaD – one safe way

- **T**itle
  - **I**ntroduction
  - **M**ethods
  - **R**esults
- and
- **D**iscussion

# TIMRaD

## **TITLE**

- skal beskrive studiet og fange læseren
- ikke stille spørgsmålet – giv svaret eller metoden
- inkluder et verbum
- undgå specialtegn (? ! “” % &)
- ikke tid og sted

# TIMRaD

## **I**NTRODUCTION

**hvorfor er studiet interessant og vigtigt?**

- **2 afsnit**
  - 1. kliniske problem, mangel på evidens**
  - 2. hypotese og formål**
- **undgå**
  - **lange introduktionsafsnit**
  - **stort antal referencer**
- **long intros lose readers - make it brief**

# TIMRaD

## MMETHODS

hvordan gjorde vi?

- organiser kronologisk
- underoverskrifter hvis meget kompliceret
- statistik og etik i sidste afsnit
- undgå at kopiere fra andre/selv

# TIMRaD

## **RESULTS**

### **hvad fandt vi?**

- **opbyg kronologisk – vigtigste først**
- **data-reducér**
- **tabeller og figurer som alternativ til teksten**

# TIMRaD

## **DISCUSSION**

**hvilken impact/vigtighed har studiet?**

- **opbyg stramt**
  1. **basic findings**
  2. **primary/secondary outcome**
  3. **strengths and limitations**
  4. **perspectives**
  5. **conclusion**
- **hold det kort (kan ofte skæres med 50 %)**
- **INGEN nye resultater**

# TIMRaD

## CONCLUSION

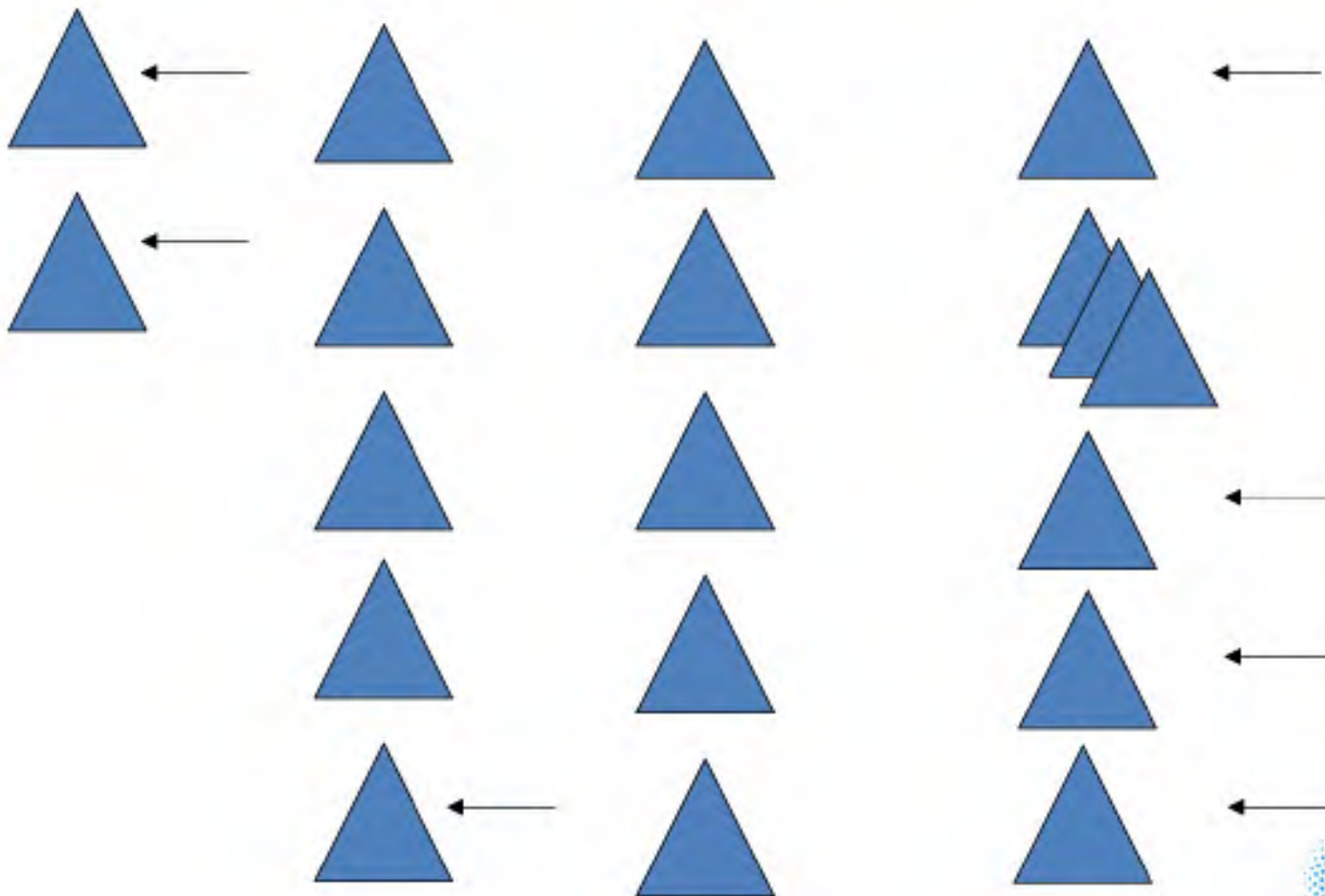
- **yderligere studier er krævet (du har fejlet)**
- **måske**
- **vi har løst gåden**

**hellere underdrive end overdrive**



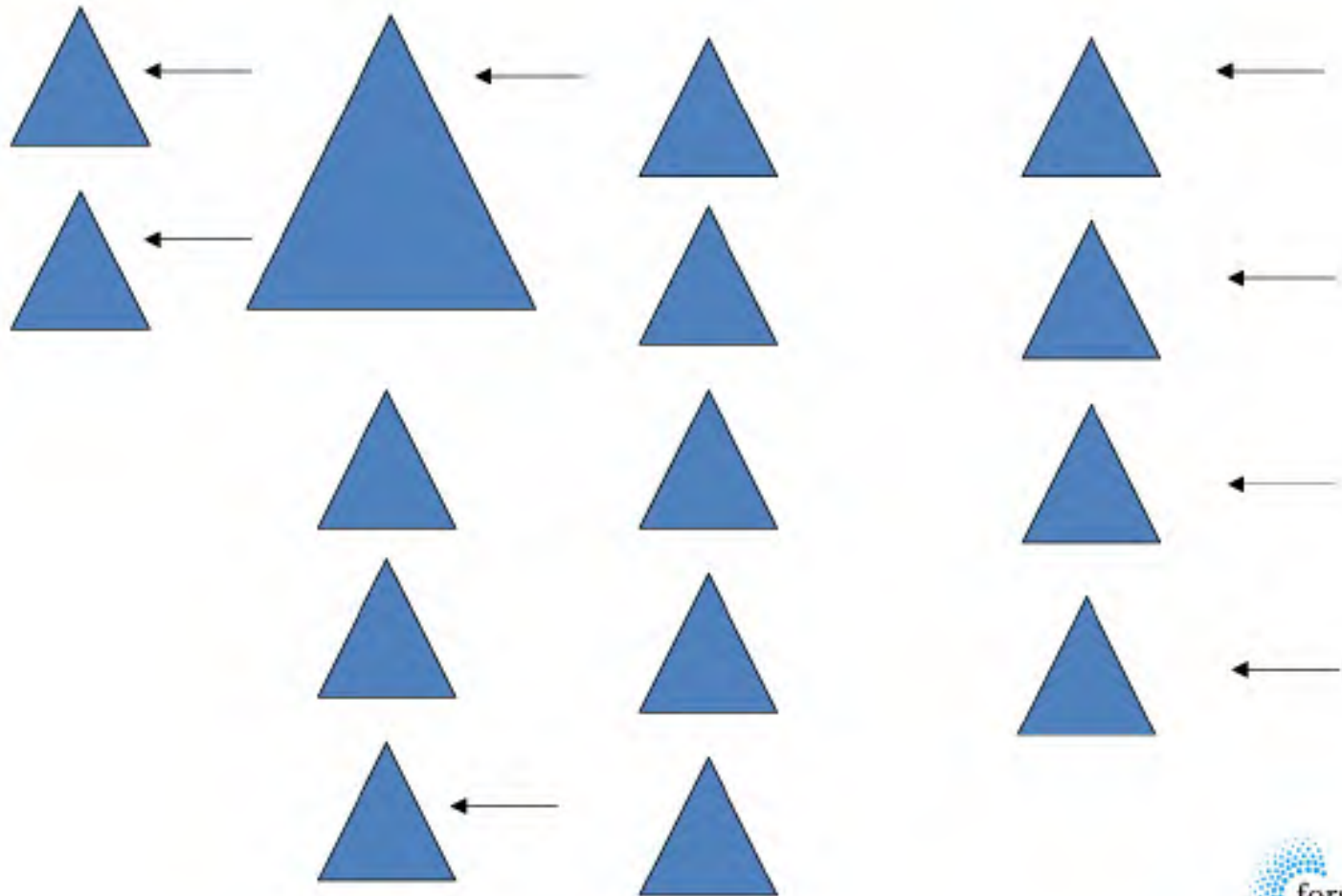
# Original artikel

**intro   methods   results   discussion**



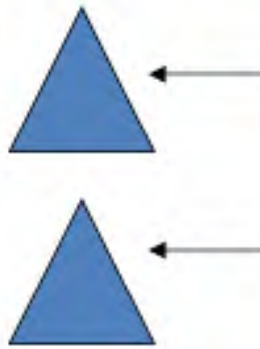
# Systematisk review

**intro methods results discussion**



# Status artikel

**intro**



**free topics**



**discussion**



# Kasuistik

**intro**

**case story**

**diskussion**



# Basic facts om narrative og systematiske reviews

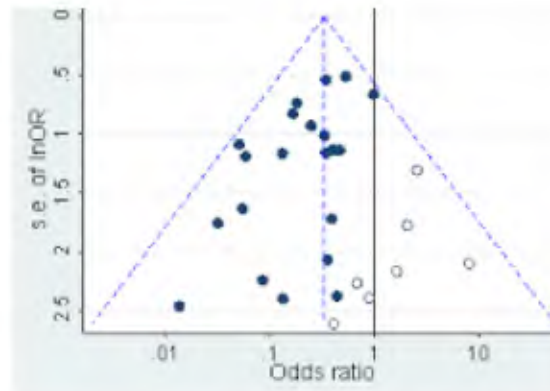
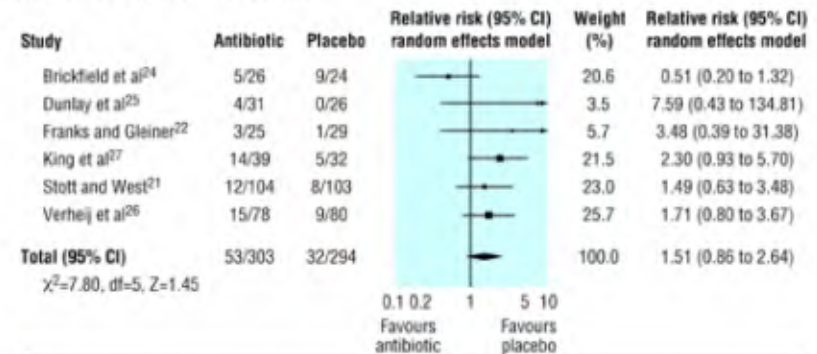


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# Hvilke typer reviews?

- Narrative review
- Systematiske review  
+/- Meta-analyse
- Cochrane

Proportion of subjects with side effects



# Definition

***“a systematic review attempts to collect relevant evidence that fits pre-specified criteria to answer a specific research question”***

- 1. “clear objectives and reproducible methodology”***
- 2. “systematic search”***
- 3. “assessment of validity and bias”***
- 4. “systematic presentation and synthesis”***

# Hvorfor et systematisk review

- manglende viden
- vigtig klinisk problemstilling
- brug for specifik viden
- du har tiden og energien
- ofte publicerbart



# Protokol

- 3 p'er
  - PRISMA-P (hvordan skrives protokollen)
  - PROSPERO (hvor registreres protokollen)
  - PRISMA (hvordan opbygges reviewet)

# PRISMA

- Preferred Reporting Items for Systematic Reviews and Meta-Analysis
- krav
- værktøj til opbygning og rapportering
- [www.prisma-statement.org](http://www.prisma-statement.org)

# PRISMA

OPEN ACCESS Freely available online

PLoS MEDICINE

## Guidelines and Guidance

### Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement

David Moher<sup>1,2\*</sup>, Alessandro Liberati<sup>3,4</sup>, Jennifer Tetzlaff<sup>1</sup>, Douglas G. Altman<sup>5</sup>, The PRISMA Group<sup>\*</sup>

<sup>1</sup>Ottawa Methods Centre, Ottawa Hospital Research Institute, Ottawa, Ontario, Canada, <sup>2</sup>Department of Epidemiology and Community Medicine, Faculty of Medicine, University of Ottawa, Ottawa, Ontario, Canada, <sup>3</sup>Università di Modena e Reggio Emilia, Modena, Italy, <sup>4</sup>Centro Cochrane Italiana, Istituto Ricerche Farmacologiche Mario Negri, Milan, Italy, <sup>5</sup>Centre for Statistics in Medicine, University of Oxford, Oxford, United Kingdom

OPEN ACCESS Freely available online

PLoS MEDICINE

## Guidelines and Guidance

### The PRISMA Statement for Reporting Systematic Reviews and Meta-Analyses of Studies That Evaluate Health Care Interventions: Explanation and Elaboration

Alessandro Liberati<sup>1,2\*</sup>, Douglas G. Altman<sup>3</sup>, Jennifer Tetzlaff<sup>4</sup>, Cynthia Mulrow<sup>5</sup>, Peter C. Gøtzsche<sup>6</sup>, John P. A. Ioannidis<sup>7</sup>, Mike Clarke<sup>8,9</sup>, P. J. Devereaux<sup>10</sup>, Jos Kleijnen<sup>11,12</sup>, David Moher<sup>4,13</sup>

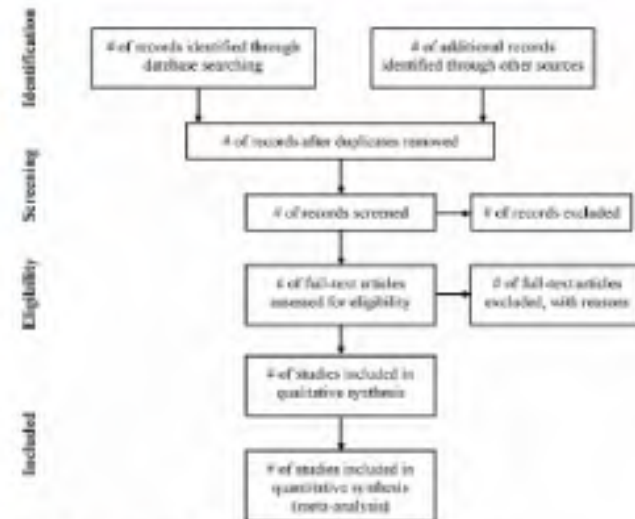


Figure 1. Flow of information through the different phases of a systematic review. doi:10.1371/journal.pmed.1000407.g001

# Checklisten



## PRISMA 2009 Checklist

Section/topic	#	Checklist item	Reported on page #
<b>TITLE</b>			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	
<b>ABSTRACT</b>			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	
<b>INTRODUCTION</b>			
Rationale	3	Describe the rationale for the review in the context of what is already known.	
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	
<b>METHODS</b>			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any exclusions and	

# Et godt forskningsspørgsmål

- klart og fokuseret
- relaterer til specifikke problem
- hjælper med at identificere relevant evidens
- guider reviewet

# PICO(S)

**P**opulation

**I**ntervention

**C**omparison

**O**utcomes

**S**tudy design

# eksempel PICO

In **patients with rectal cancer (P)**,  
how does **robotic surgery (I)**  
compared with **laparoscopic surgery (C)**  
affect **mortality and morbidity (O)**

# Meta-analyse

- **statistisk sammenfatning af resultater fra to eller flere studier**

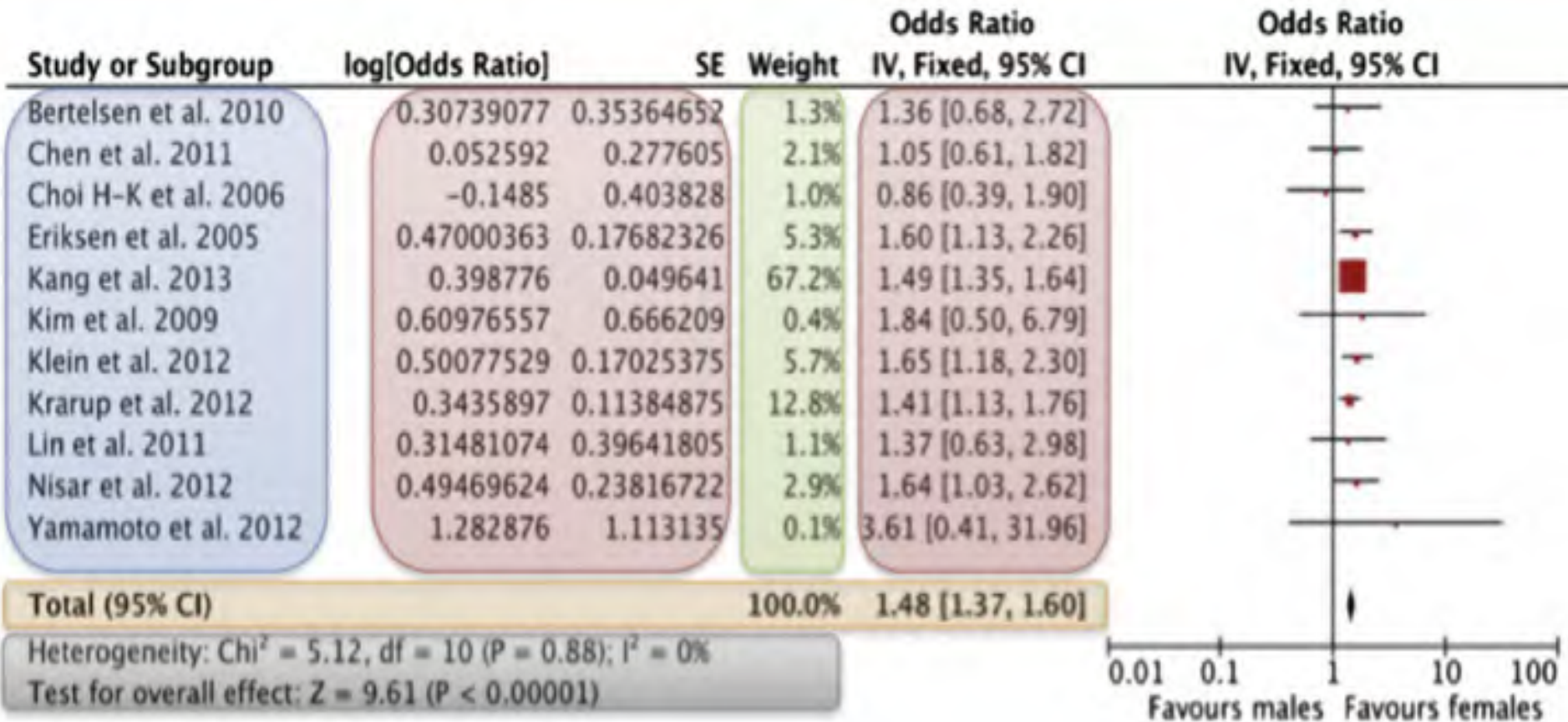


+





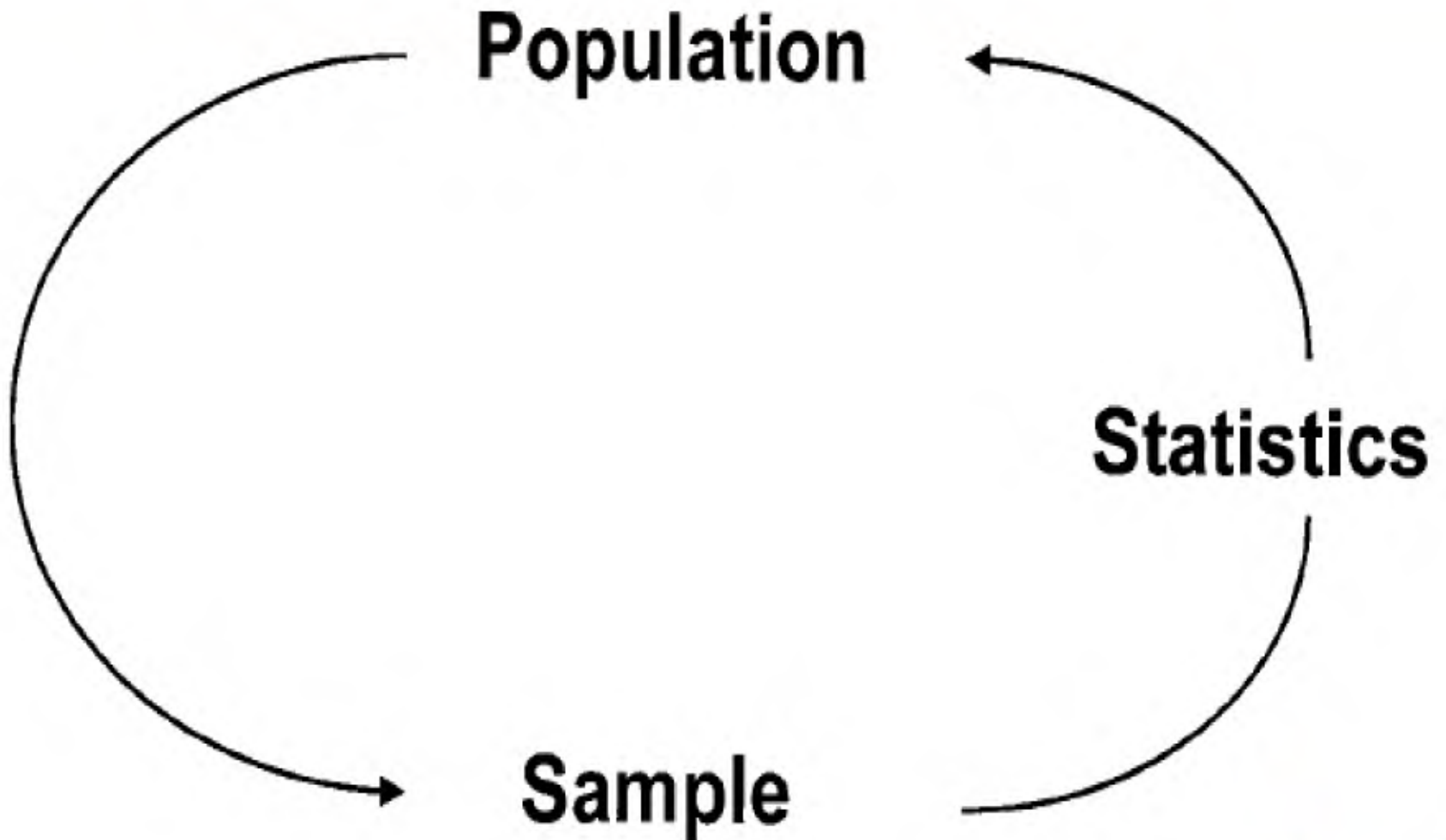
# Forest plot



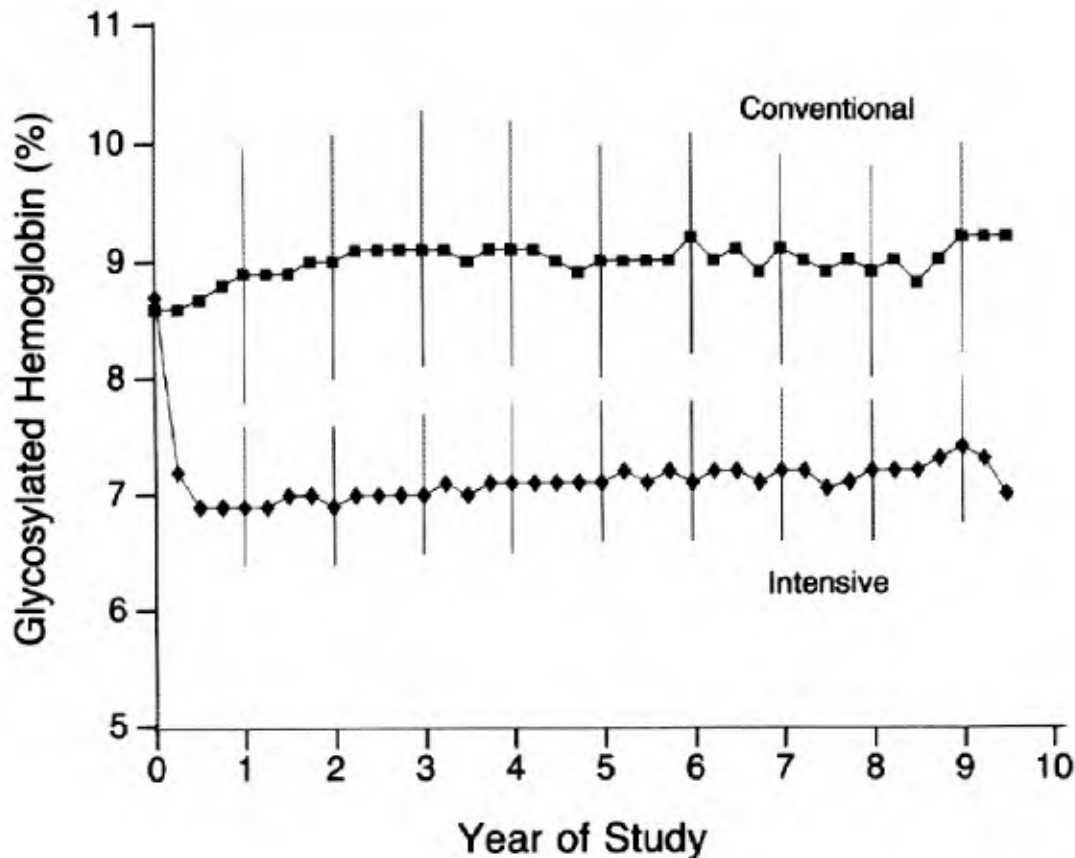
# Basal statistik



# Formål med statistik



# The Diabetes Control and Complications Trial Research Group. N Engl J Med 1993;329:977-986.



The **medians** of all quarterly glycosylated hemoglobin values, with the **25th and 75th percentiles** of the yearly values indicated by the vertical lines. The differences between treatments were statistically significant (**P<0.001**) from three months until the end of the study.

RESEARCH ARTICLE

Open Access

# Constipation and diarrhoea - common adverse drug reactions? A cross sectional study in the general population

Gunvor S Fosnes<sup>1,2\*</sup>, Stian Lydersen<sup>2</sup>, Per G Farup<sup>1,2</sup>

not [28]. Since severe hypothyroidism is associated with constipation, the association between levothyroxine sodium and constipation might have been confounded by the disorder under treatment (hypothyroidism) or insufficient treatment, or it might be a type I error. Carbamazepine

# Psychiatric Disease and Functional GI Disorders in the Community: More Evidence for a Casual Link?

American Journal of Gastroenterology  
© 2005 by Am. Coll. of Gastroenterology  
Published by Blackwell Publishing

There may be an increased prevalence of psychiatric disease in those with nonpost-infectious irritable bowel syndrome (5). We recognize that our results were not statistically significant, but this could be explained by a type 2 error. We were limited in this study to the population that agreed to participate in our previous work. Psychiatric disease may be

# Manuscript Mapping – et redskab til grundig forberedelse



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# Hvordan kom ideen?

- **skriveblokade**
- **frustrationer**
- **lang tid fra data til publikation**
  - (data upubliceret)
- **dikteringsteknik**



# Skrive-blokade

- frygt for afvisning og kritik
- manglende formel struktur
- manglende forståelse for publiceringsprocessen
- usikkerhed omkring det videnskabelige sprog
- manglende tid



Publish or perish: a systematic review of interventions to increase academic publication rates. Higher Education Research & Development 2006;25:19-35

# Manuscript mapping

- **metode**
- **detaljeret disposition inkl. referencer**
- **revideres løbende**
- **overblik**
- **afklaring af indhold og vinkel med forfattergruppe**

# Disposition – manuscript map

- **Opbygges som færdige artikel (TIMRaD)**
- **Find ”instructions for authors”**
- **Inddelt i underafsnit på punktform (ord eller korte sætninger)**
  - **en bullet pr. tekstafsnit**
  - **inkl. referencer**

# Inden du går i gang

- **Fundet og læst nødvendige litteratur?**
- **Resultater skal være analyserede (tabeller, grafer, citater, statistik osv.)**
- **Præsentation af resultater/udformning af artiklen**
- **Hvis muligt undersøg tidsskriftets kriterier**

# Jacob R.

- **tænke i en måned**
- **få ord per afsnit**
- **finde referencer**
- **dikter**

# Jakob B.

- **Introduktion**
  - baggrund
  - hypotese + formål
- **Metode**
  - kronologisk
  - etc
  - statistik
  - etik + tilladelser
- **Resultater**
  - Demografi (Tabel 1)
  - Primær outcome
  - Sekundær outcome
- **Diskussion**
  - Basic facts
  - Primært outcome
  - Sekundært outcome
  - S+L
  - perspektiver

# JB disposition

1. Majority IH males (1), divided DIH, IIH (2). Recurrence 1-21% (method, hernia type DIH/IIH, centre volume, follow-up period)(3-6). ↑ Risk re-recurrence (7,8).
2. No large scale recurrence DIH / IIH. Strategies postoperative, surgical method, follow up, preoperative counseling, research theories pathophysiology.
3. Purpose: analysis hernia operations males, hypothesis DIH/IIH different recurrence characteristics.

## **METHODS:**

Data were extracted from the Danish Hernia Database (DHDB) which started registration January 1<sup>st</sup> 1998 (9). The DHDB registers all groin hernia from 18 years of age using the unique civil registration system (CRS) number (10), which allows cross referencing between all national registers and hospitals (11). The DHDB prospectively includes approximately 10.000 primary groin hernia repairs per year, covering 90% of inguinal herniorrhaphies in Denmark. Details regarding data collection, administration and management are described elsewhere (9). No physical follow-up is performed within the structure of DHDB.

# Kristoffer

- læse
- diskutere
- læse
- diskutere

**print + noter**

**resultater og figurer**



# Disposition

- side 1: Titlepage
- side 2
  - Introduction
  - Methods
  - Results
  - Discussion

## Instructions For Authors



### Reporting guidelines for main study types

<a href="#">Randomised trials</a>	<a href="#">CONSORT</a>	<a href="#">Extensions</a>	<a href="#">Other</a>
<a href="#">Observational studies</a>	<a href="#">STROBE</a>	<a href="#">Extensions</a>	<a href="#">Other</a>
<a href="#">Systematic reviews</a>	<a href="#">PRISMA</a>	<a href="#">Extensions</a>	<a href="#">Other</a>
<a href="#">Case reports</a>	<a href="#">CARE</a>		<a href="#">Other</a>
<a href="#">Qualitative research</a>	<a href="#">SRQR</a>	<a href="#">COREQ</a>	<a href="#">Other</a>
<a href="#">Diagnostic / prognostic studies</a>	<a href="#">STARD</a>	<a href="#">TRIPOD</a>	<a href="#">Other</a>
<a href="#">Quality improvement studies</a>	<a href="#">SQUIRE</a>		<a href="#">Other</a>
<a href="#">Economic evaluations</a>	<a href="#">CHEERS</a>		<a href="#">Other</a>
<a href="#">Animal pre-clinical studies</a>	<a href="#">ARRIVE</a>		<a href="#">Other</a>
<a href="#">Study protocols</a>	<a href="#">SPIRIT</a>	<a href="#">PRISMA-P</a>	<a href="#">Other</a>

[See all 280 reporting guidelines](#)

# Overblik

## Introduction

- **background**
- **gap in the literature, lack of RCT, ref. Cochrane**
- **previous analysis on femoral hernia in the database... referenceliste**
- **this study**
- **the aim of this study is to investigate re-operation rates after femoral hernia**

## Introduction

### - Background.

- Femoral hernia: rare condition 2-4 % of groin hernias.
- More often affecting woman than men.
- Many different approaches for femoral hernia repair (1–4).

### - Gap in the literature.

- relative few studies, and a lack of RCT, Cochrane(5).
- Register studies represents an alternative to RCT.

- Swedish hernia register, 588 (206 emergency) femoral repairs (6), 2924 femoral hernias as a subgroup (7), 2524 elective and 1409 emergent femoral hernias (8). DHDB 1055 femoral repairs, subgroup (9). Shouldice hospital 2105 femoral repairs (10).

### - This study.

- To our knowledge this is the largest cohort of femoral hernia patients published (n=5064).
- Description of DHDB (nationwide, >148.000 operations, surgical practice – not specialized center).
- First publication focusing solely on reoperation rates following femoral hernias from DHDB.

### - Aim.

- The aim of this study is to investigate re-operation rates after femoral hernia and find out which method gives the lowest re-operation rate.

# Efter møder og (mange) rette-runder

## **Introduction**

### **- Background.**

- 10.000 repairs annually in DK
- Femoral hernia: rare condition 2-4 % of groin hernias (1,2).
- Often emergencies (3,4)
- Many different approaches for femoral hernia repair (5–8).

### **- Gap in the literature.**

- relative few studies, and a lack of RCT, Cochrane(9).
- Register studies represents an alternative to RCT (1).
- Guidelines recommendation (10, 11).

### **- This study.**

- To our knowledge this is the largest cohort of femoral hernia patients published (n=5064).
- Description of DHDB (nationwide, >148.000 operations, surgical practice – not specialized center).
- First publication focusing solely on reoperation rates following femoral hernias from DHDB.

### **- Aim.**

- The aim of this study is to investigate re-operation rates after femoral hernia.
- Reoperation as a surrogate measure for recurrence.

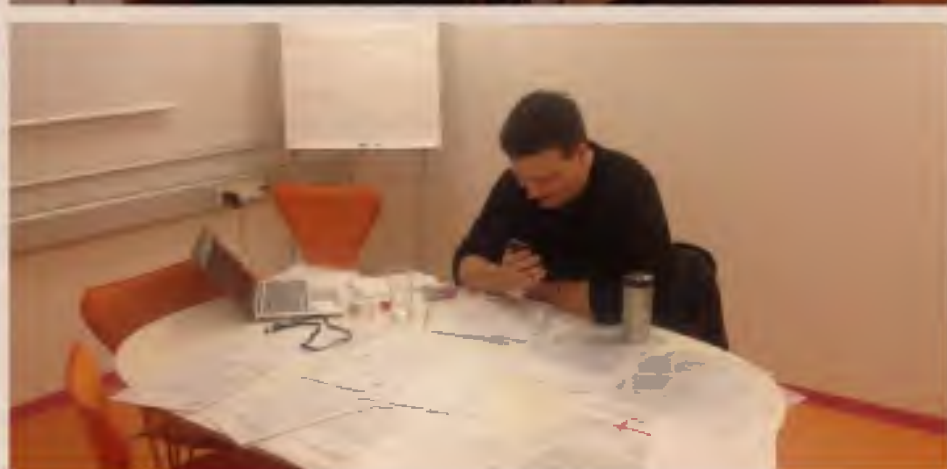
# Endelig artikel

**Background:** In Denmark, approximately 10 000 groin hernias are repaired annually. Of these, 2% to 4% are femoral hernias.<sup>1,2</sup> Femoral hernias may pose a special risk for the patient because they often present as emergencies with suspected intestinal obstruction.<sup>3,4</sup> Several methods for repair of femoral hernias are used including sutured repair and different types of mesh repair with either open or laparoscopic techniques.<sup>5-8</sup> **Gap in literature:** The fact that many approaches are currently in use reflects a rather low level of evidence for the best method of repair. Randomized clinical trials are lacking.<sup>9</sup> Large, prospective cohort studies are an alternative way of acquiring improved evidence regarding the best type of repair.<sup>1</sup> Currently, Danish<sup>10</sup> and European<sup>11</sup> guidelines for hernia repair recommend that a laparoscopic approach should be used for femoral hernia repair.

**This study:** The Danish Hernia Database has prospectively recorded hernia repairs for the past 15 years and has national coverage. **Aim:** The aim of the present study was to investigate the reoperation rate after laparoscopic and open repair of a femoral hernia on a nationwide basis.

# Sidste forberedelser inden diktering

- **dataanalyse, statistik, tabeller og figurer skal være færdige**
  - print ud
- **manuskript map tjekkes sidste gang**
  - print ud
- **referencer gennemgås**
  - print ud og sortér i afsnits-bunker
- **find et roligt sted uden forstyrrelser og afsæt tid til at blive færdig**





# udstyr

- iPhone, iPad, iPod touch, android smartphone
- en passende app
- transkriptionsprogram





## Mind-to-paper is an effective method for scientific writing

Jacob Rosenborg, Jakob Burdardt, Hans Christian Poesmergaard & Anne Kjørgaard Danielsen

### ABSTRACT

**INTRODUCTION:** The problem of initiating the writing process is a well-known phenomenon, especially for young and inexperienced scientists. The purpose of this paper is to present an effective method to overcome this problem and increase writing efficiency among inexperienced scientists.

**MATERIAL AND METHODS:** Twelve young scientists within the medical/surgical fields were introduced to the mind-to-paper concept. The first and last article drafts produced by each of the scientists were scored for language complexity (IX number, Flesch Reading Ease Scale and Gunning Fog), flow, structure, length and use of references; and the results were compared.

**RESULTS:** All participants produced one full article draft during each of the three dictation days. When comparing the first and last article draft regarding time used, no significant difference was detected. In general, the manuscripts were of high quality on all evaluated parameters, but language complexity had increased in the final manuscript.

**CONCLUSION:** Mind-to-paper dictation for scientific writing is an effective method for production of scientific papers of good initial quality, even when used for the first time by inexperienced scientists. We conclude that practicing this concept produces papers of an adequate language complexity, and that dictation as a writing tool allows for fast transfer of ideas and thoughts to written text.

**FUNDING:** not relevant.

**TEBILREGISTRATID:** not relevant.

Academic writing and publishing is an integral part of scientific work [1]. However, both professors and young researchers can experience difficulties when initiating the writing process, i.e. writer's block. Furthermore, the usual methods for academic writing in the form of writing on paper or on a computer may be time-consuming, and the work process is often fragmented as opposed to spontaneous speech, defined as the direct transition from thought to words [2]. There are different methods to overcome writer's block, e.g. use of a dictation device, modular writing, or elimination of distractions in the common environment. The use of dictation allows easy transfer of ideas to paper without interruptions from interfering thoughts and practical tasks. Evidence that dictation as a means of writing holds benefits for both average and expert writers is building [3]. The

speed of talking resembles the speed of thinking more closely than the speed of typing text on a computer or writing by hand. Furthermore, the quality of the text is not only associated with fluency of the speech, as it is imperative that the author has relatively in-depth knowledge about the topic [4].

The aim of the present study was to explore and describe the mind-to-paper (MTP) concept for academic writing with the use of a structured manuscript outline, dictation of the first manuscript draft and a structured learning environment. We also wanted to evaluate if a learning effect was associated with the use of the MTP technique and therefore examined the first and the third paper produced by the participants.

### MATERIAL AND METHODS

During a ten-month period, three separate courses were conducted. Each of the courses consisted of a four-week preparation period, a one-day retreat where a full scientific manuscript was dictated, and a subsequent period of eight weeks for critical revision of the manuscript concluding with submission of the paper to a scientific journal. We have evaluated and compared manuscript outcomes from the first and last course.

For the first course process, the preparation phase was initiated with a two-hour kick-off seminar giving participants detailed instructions on article composition, the concept of dictation for scientific writing as well as instructions for producing a structured manuscript outline. During the subsequent four weeks, participants attended group meetings (3-5 participants in each group) with an academic supervisor, who was experienced in use of the dictation technique for academic writing. The overall objective of the preparation phase was to produce a structured outline for the manuscript. All figures, tables and statistical analyses for the manuscript had to be prepared in advance and finished before the dictation retreats.

The dictation retreat consisted of one full day dedicated to dictation of a full text article draft. Each of the participants brought their detailed manuscript outline, all needed references were printed and ordered according to the manuscript outline. The retreat was held in a remote location and each participant had a separate room for dictation. There were three academic super-

### ORIGINAL ARTICLE

Department of Surgery, Herlev Hospital

Dan Med J  
2013;60(3):A4593

# Publikationsprocessen



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idé disposition diktering revision medforfattere submission revision publikation



# Revisionsprocessen

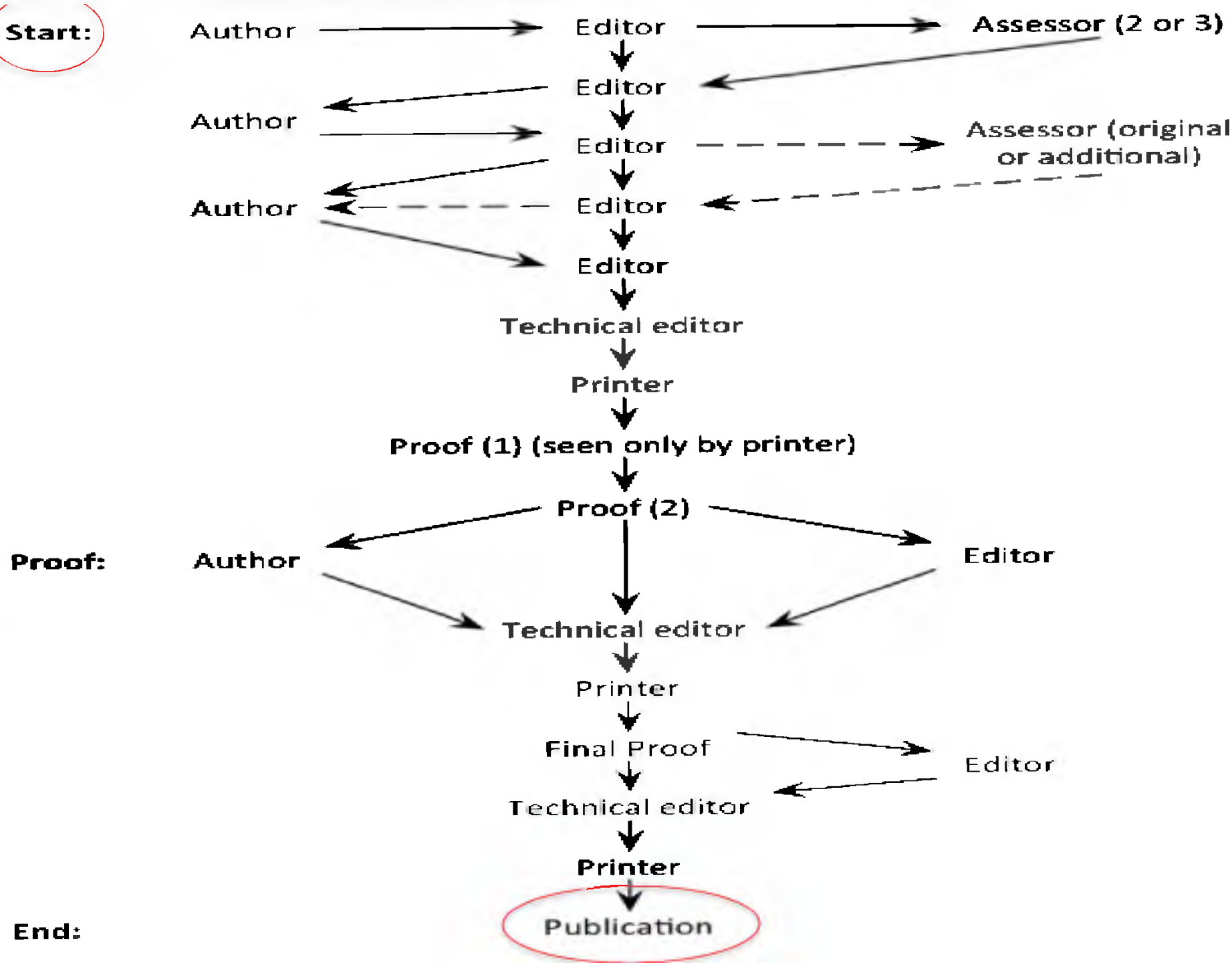
- **stavefejl, slåfejl**
- **indhold**
  
- **klargøre**
  - **title page**
  - **abstract**
  - **manuscript**
  - **tables**
  - **figures**
  - **cover letter**
  - **copyright statement**
  - **references**

# involvering af medforfattere

- **forfatterskabskriterier ([www.icmje.org](http://www.icmje.org))**
- **alle medforfattere skal give feedback**
- **normalt accepterer man revisionsforslag**
- **final approval – fra alle medforfattere**
- **submit**

# Tidsskrifternes farlige og ukendte verden....





# Trends i tidsskrifternes verden

- **let og overskueligt at læse (let at skrive)**
- **få budskaber**
- **simpelt sprogbrug**
- **papir tidsskrifter er ”magasin-agtige” og online tidsskrifter er mere hardcore science**
- **journalister ansættes i tidsskrifterne**



# Vurdering af artikler hos tidsskrifterne

- **er målgruppen korrekt?**
- **originalitet: er det nyt, er historien god?**
- **impact: vigtigt skridt fremad?**
- **førstegangspublikation?**
- **troværdigt og reproducerbart?**
- **er det enkelt og klart beskrevet?**

# Hvorfor afvises artikler?

- **svært eller umuligt at læse**
- **uklart budskab**
- **tidsskriftets instruktioner ignoreres**
- **forkert målgruppe**
- **forfatter efterkommer ikke tidsskriftets krav**

# Afvist manuskript?

- det kommer ALLE til at prøve på et tidspunkt!
  - ikke verdens undergang....
- appel?
  - drop det. Tag et nej for et nej....
  - nyt tidsskrift
- HUSK ved ny indsendelse:
  - ”rent” manuskript
  - ingen rettemærker, overstregninger, kommentarer



**Hvordan kommer du videre?**



forskerkurser.dk

# Undgå skriveblokade

- **det sværeste er at komme i gang**
- **brug alle tænkelige hjælpemidler**
- **forbered dig grundigt**

# Undgå skriveblokade

- miljø uden distraktioner
- forbered dig og brug **ALTID** disposition
- diktér
- skriv uden at kigge tilbage
- lad være med at rette undervejs (hvis du skriver)
- drop ideen om det perfekte første udkast
- skriv simpelt

# Hvordan kommer du videre?

- **find en vejleder/gruppe der *vil* dig og har tid**
- **emnet er mindre vigtigt**
- **start med et overskueligt projekt**
- **få styr på litteratursøgning, statistik, metoder**
- **vær struktureret**
- **læs op eller tag på kursus**
- **og...**

**ON THE ROAD TO SUCCESS,  
THERE ARE NO SHORTCUTS.**

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