

Posterwalk 3 – Anæstesi og reumatologi

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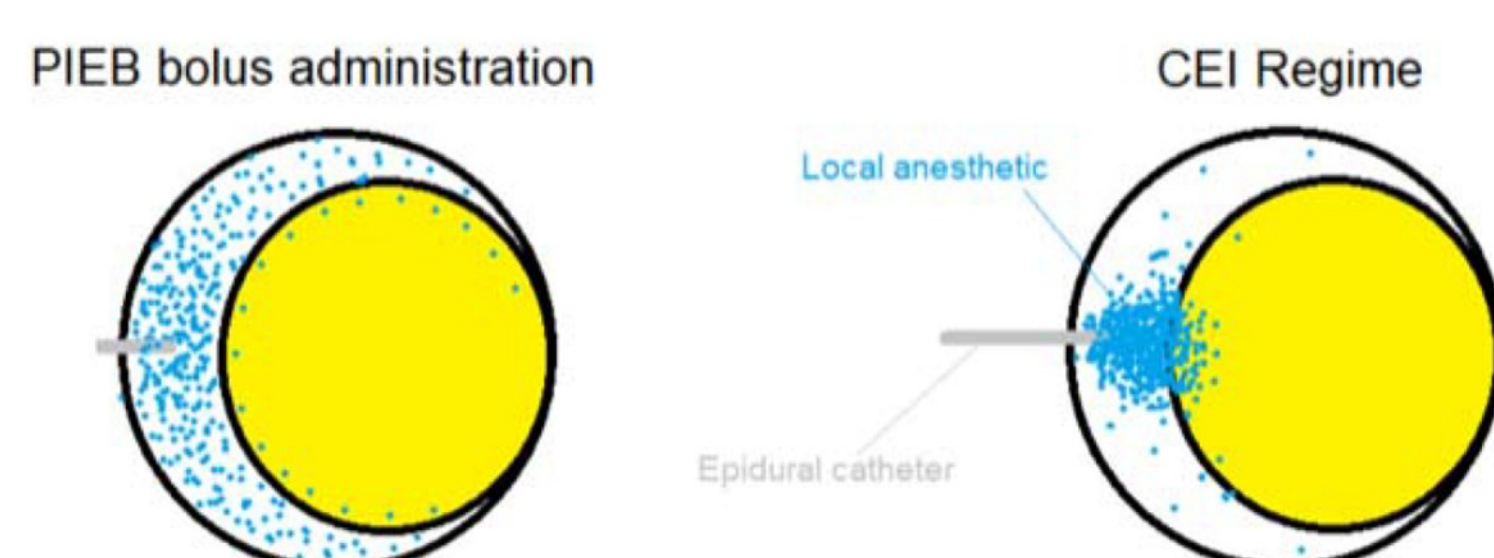
Continued Epidural Infusion (CEI) versus Programmed Intermittent Epidural Bolus (PIEB)

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Baggrund

Fødende i Danmark ønsker i stigende grad effektiv smertelindring med epiduralblokada.

Anbefalingerne vedr. administrationsmetode har ændret sig fra kontinuerlig infusion(CEI) til en intermitterende bolusinfusion (PIEB).



Formål

Aktuelle projekt var et tværfagligt projekt mellem Anæstesiologisk afd. V og Gynækologisk/Obstetrisk afd. D på Odense Universitetshospital (OUH)

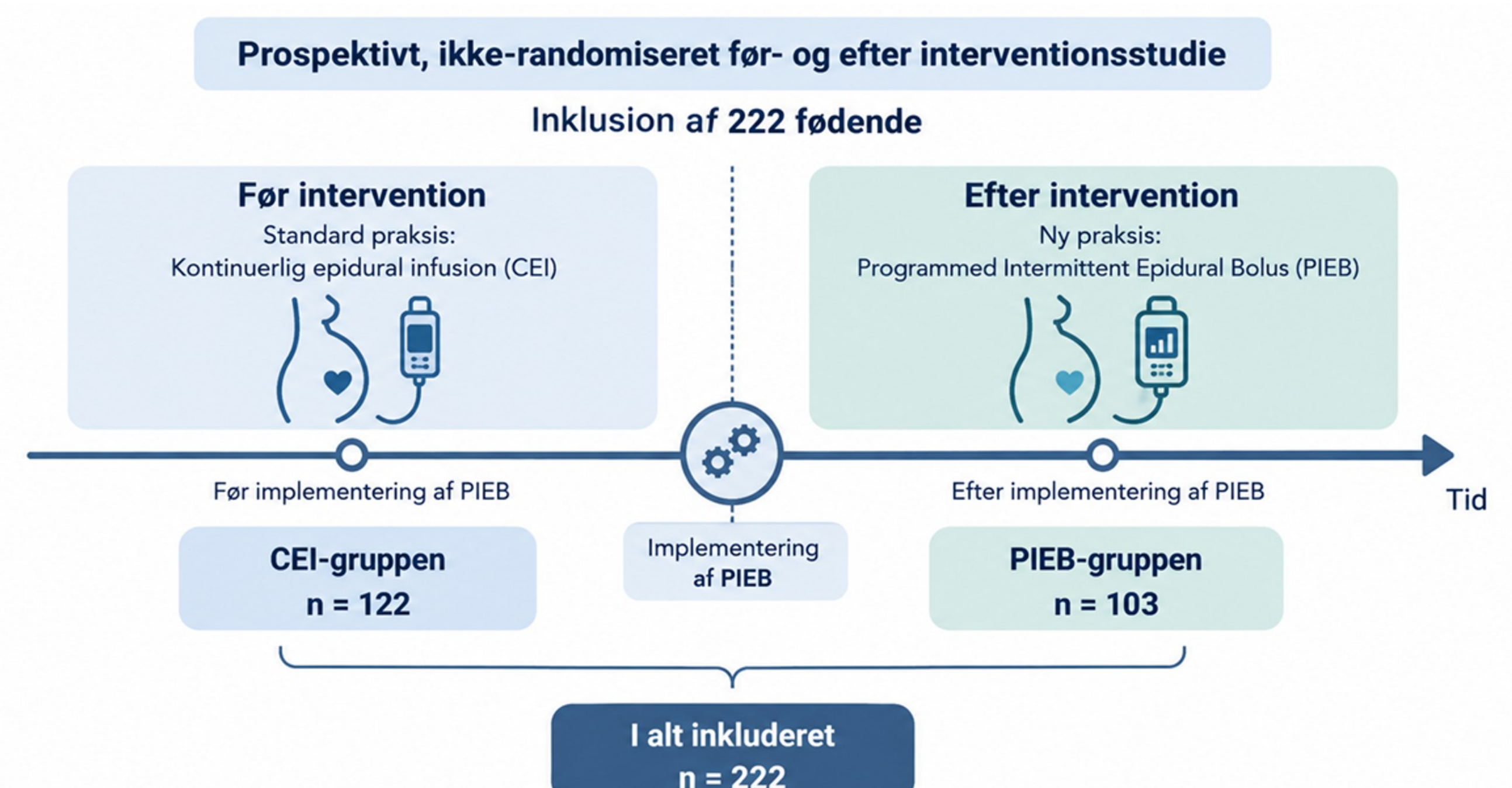
Formålet var at sammenligne CEI og PIEB med fokus på de fire mest almindelige bivirkninger (>10%)

- Motorisk blokade
- Feber under fødslen
- Hypotension
- Urinretention (PUR)

Projektet sammenlignede desuden CEI og PIEB ud fra de fødendes oplevelse af smertelindrende effekt og generelle tilfredshed



Metode



- Data blev indhentet via observationsskemaer ved inklusion samt ved faste tidsintervaller under fødslen.
- Der blev indhentet data samt diagnosekoder ved journalopslag.
- Oplysninger om de fødendes tilfredshed og smertefornemmelse blev indsamlet vha. et spørgeskema efter fødslen.

Vurdering af motorisk blokade blev anvendt:

Bromage score

- Fuld bevægelse i knæ/fødder
- Kan bøje knæ/bevæge fødder
- Kan kun bevæge fødder
- Kan ikke bevæge knæ/fødder

Cumulated Ambulation Score(CAS)

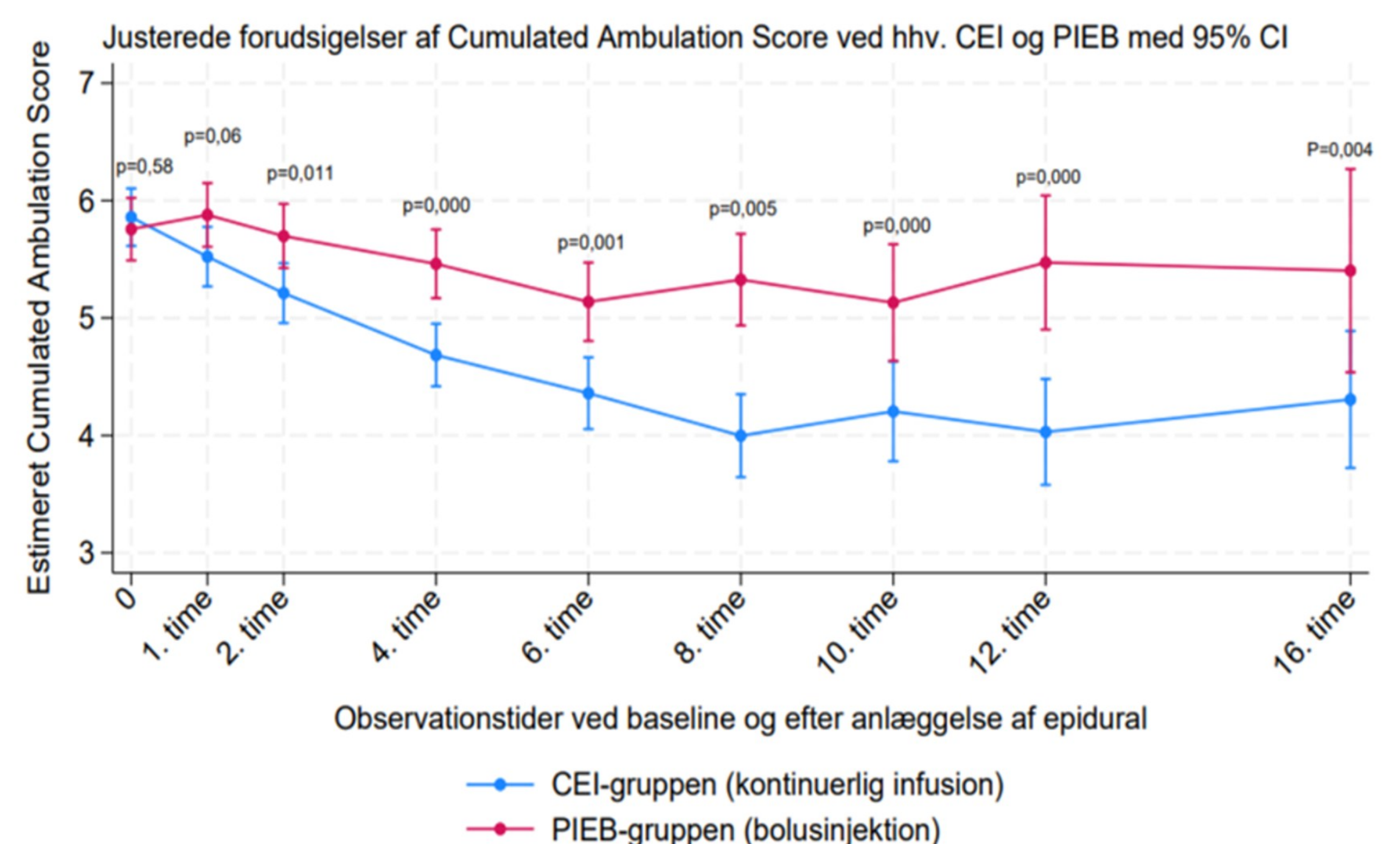
- Kan stå
- Kan rejse sig fra sengen
- Kan sætte sig på stol/rejse sig

Konklusion

- Lavere grad af motorisk blokade ved PIEB.
- De fødende angav reduktion i smerteintensitet i presseperioden ved PIEB.
- Ingen forskel i forekomsten af feber, hypotension eller urinretention efter fødslen.



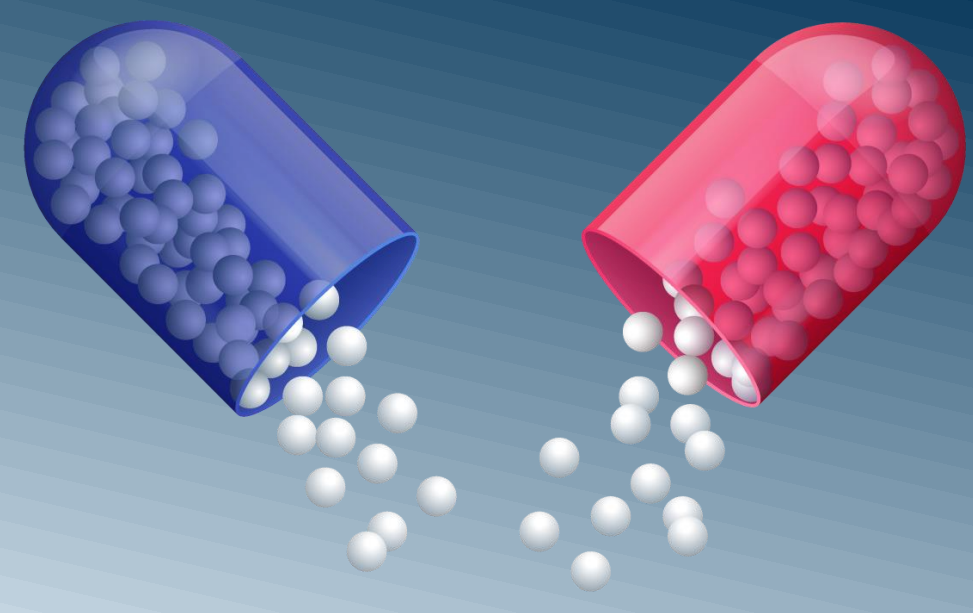
Resultater



- Vi fandt at PIEB metoden var associeret med mindre grad af motorisk blokade under fødslen.
- De fødende angav bedre smertelindrende effekt i presseperioden.

OPIOIDFRI ANÆSTESI VED LAPAROSKOPISK KOLECYSTEKTOMI

Et kvalitetsudviklingsprojekt baseret på DAD-data



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1 INTRODUKTION

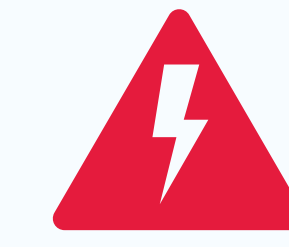
Postoperative smerter efter laparoskopisk kolecystektomi er en klinisk udfordring. En lokal opgørelse fra september-oktober 2025 viste, at omtrent hver fjerde patient havde en Numeric Rating Scale (NRS) >3 ved ankomst til opvågningsafdelingen. Den hidtidige anæstesiprotokol blev derfor ændret til en opioidfri anæstesi (OFA)-protokol.

2 FORMÅL



Dette kvalitetsudviklingsprojekt havde til formål at undersøge, om indførelse af OFA var forbundet med mindre postoperativ smerte og lavere opioidforbrug efter laparoskopisk kolecystektomi.

NØGLEORD

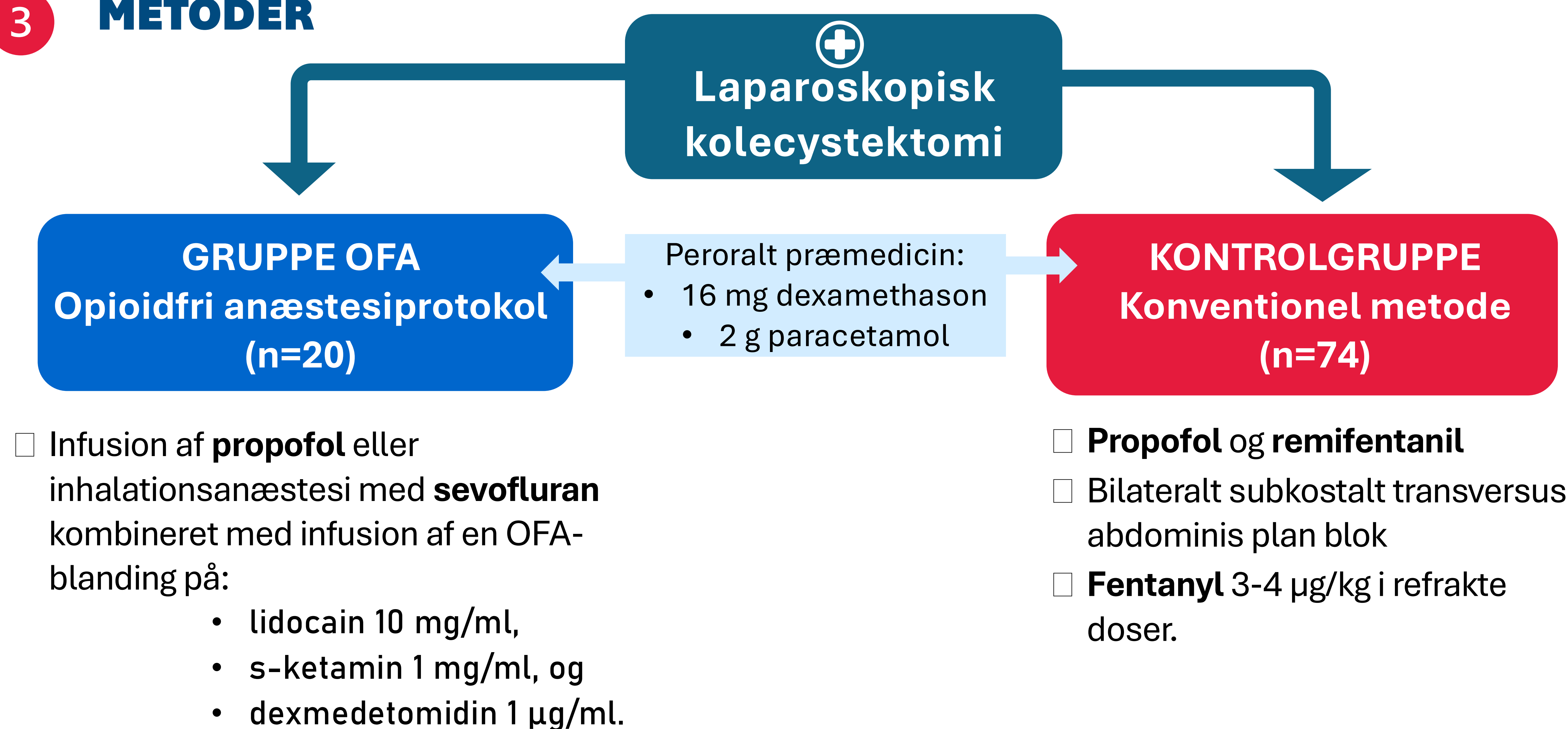


POSTOPERATIV SMERTE



OPIOID-RELATEREDE BIVIRKINGER

3 METODER



Outcomes

FRA DAD-databasen

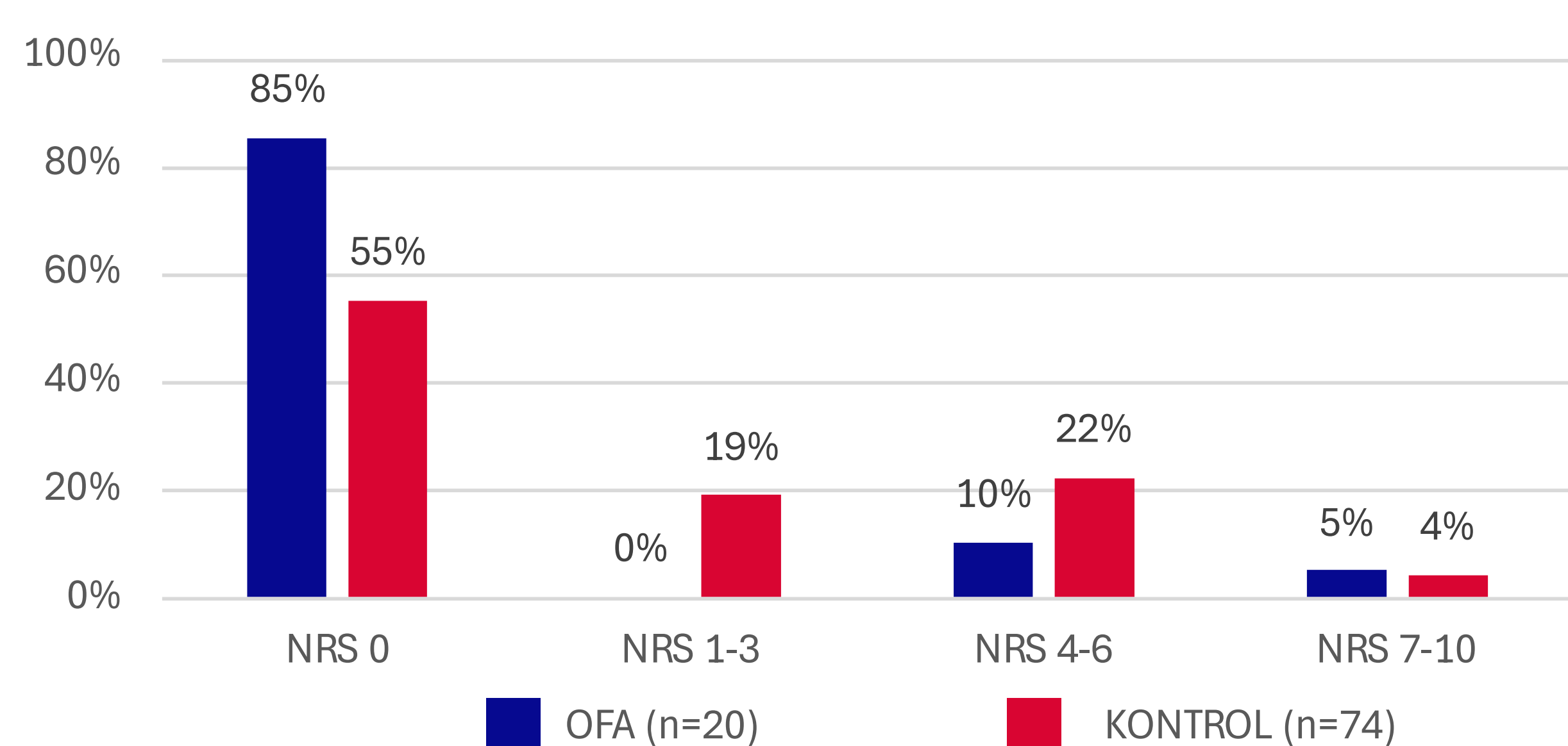
- ☐ NRS score
- ☐ PONV (postoperativ kvalme og opkastning) ved ankomst og udskrivelse fra opvågningsafdelingen
- ☐ Opvåkningstiden

FRA JOURNAL

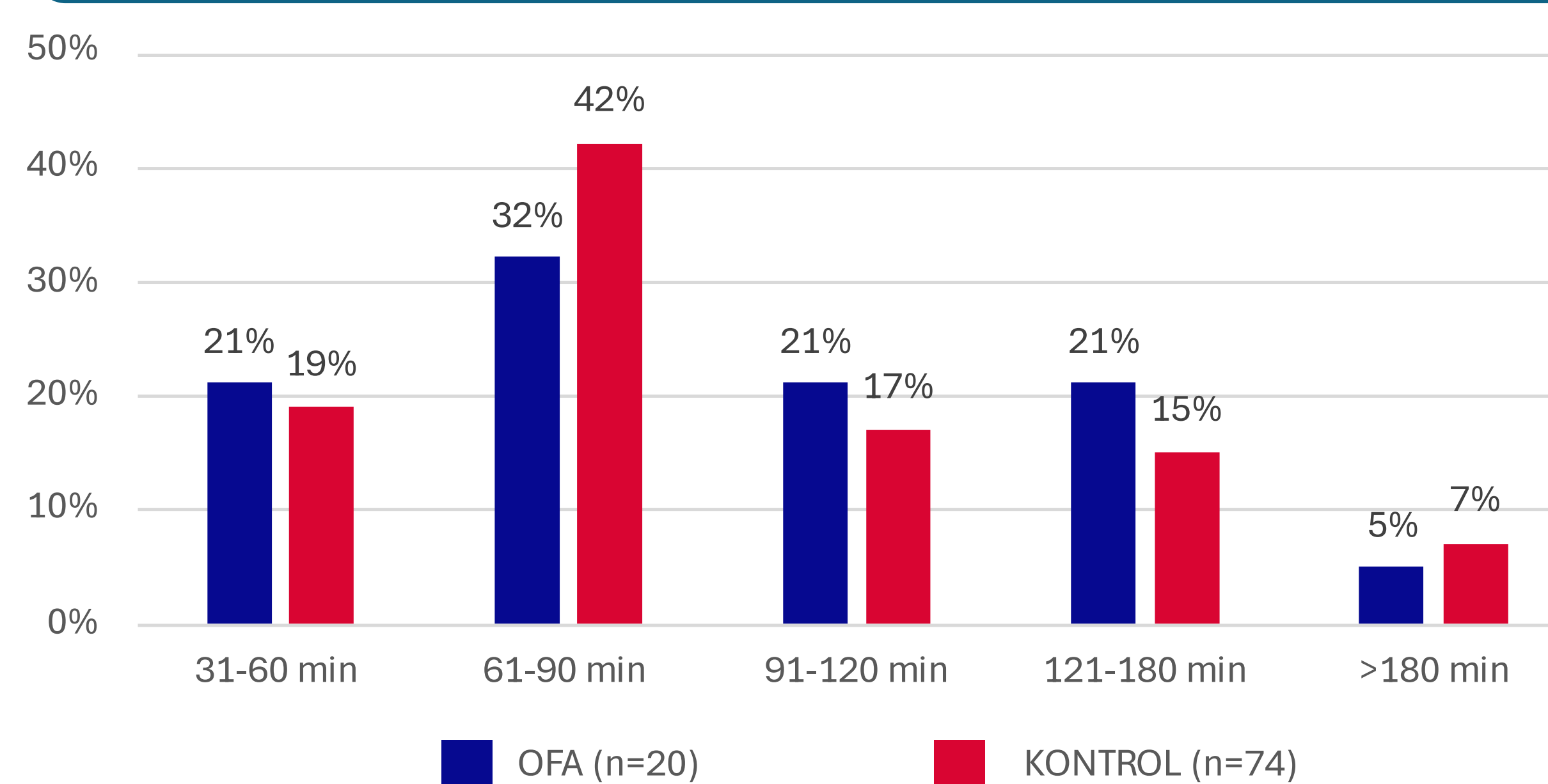
- ☐ Postoperativ opioidforbrug, omregnet til perorale morfinækvivalenter.

4 RESULTATER

Smerter ved ankomst til opvågningsafdelingen



Tid i opvågningsafdelingen

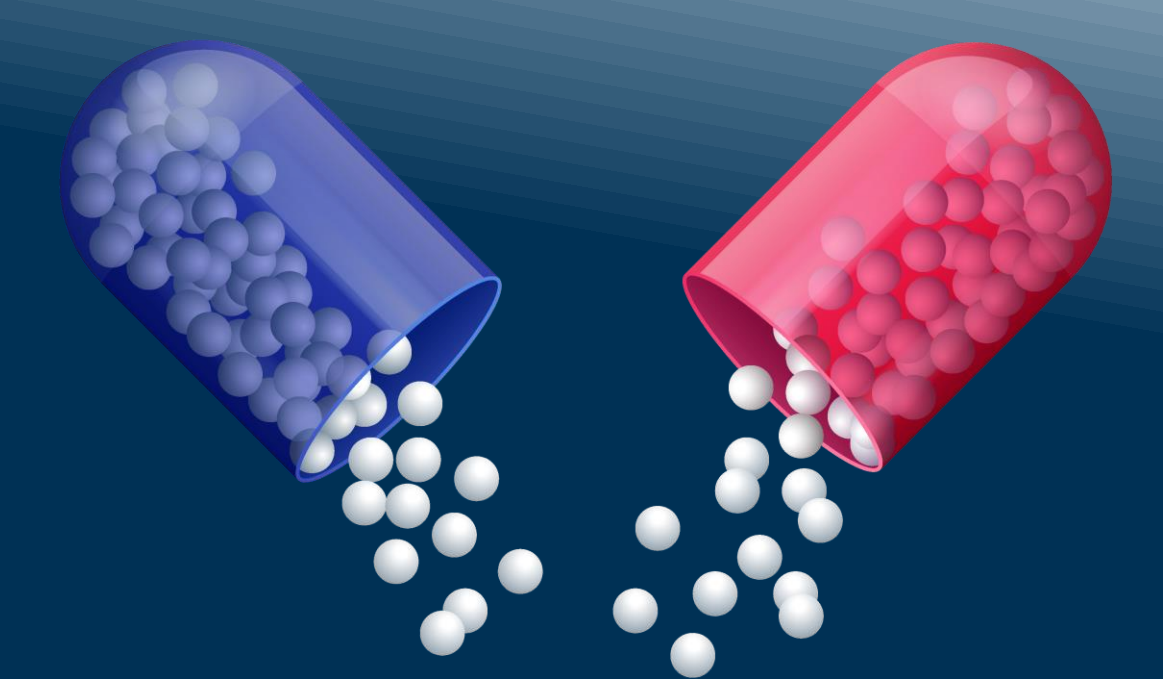


- ☐ OFA var forbundet med en større andel helt smertefrie patienter ved ankomst til opvågningsafdelingen og en mindre andel med NRS >3.
- ☐ Det postoperative opioidforbrug var **5 mg mindre** og opvåkningstiden **8 min længere**.
- ☐ En mindre andel på 5% i OFA-gruppen havde PONV score på ≥ 1 mod 11 % i kontrol gruppen

5 KONKLUSIONER

- ☐ Resultaterne bør fortolkes med stor forsigtighed grundet det lille patientantal.
- ☐ Resultaterne er i overensstemmelse med et systematisk review og metaanalyse (1), der ikke finder **klinisk relevant** forskel i postoperativ smertescore eller opioidforbrug, om end begge outcomes var **statistisk signifikant** reduceret med hhv. 0,4 i NRS score og 4 mg morfinækvivalenter. Metaanalyse (1) viser dog klinisk relevant reduktion i PONV.
- ☐ En større, prospektiv opgørelse er nødvendig for at afgøre, om OFA giver en klinisk relevant forbedring.

(1) Feenstra ML, Jansen S, Eshuis WJ, van Berge Henegouwen MI, Hollmann MW, Hermanides J. Opioid-free anesthesia: A systematic review and meta-analysis. J Clin Anesth. 2023 Nov;90:111215. doi: 10.1016/j.jclinane.2023.111215. Epub 2023 Jul 27. PMID: 37515877.



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– i gode hænder

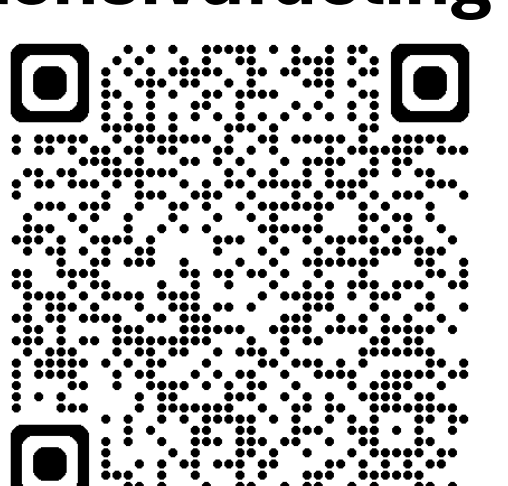
6 KONTAKT

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Læs mere om Anæstesi- og
Intensivafdeling



Comparing Algorithms for **Estimating Glucocorticoid Exposure** in Danish Patients with Rheumatoid Arthritis in the year following first visit: A Study Using National Registers and DANBIO Data

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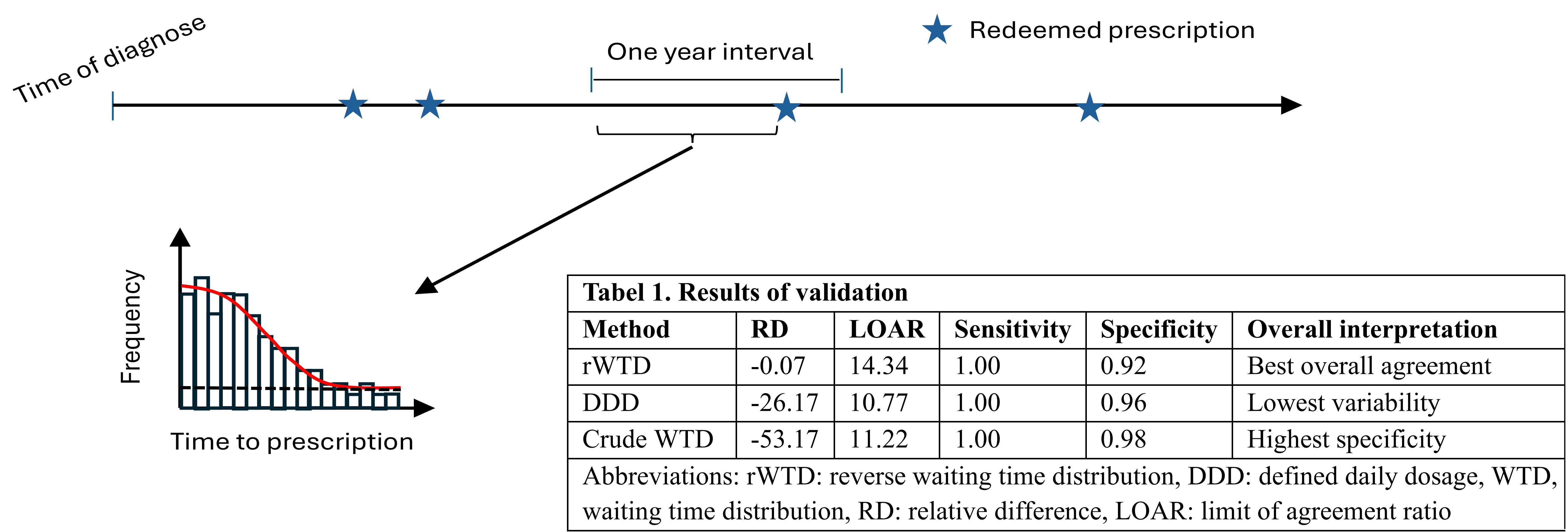
Aim: to **compare and validate methodologies for estimating oral glucocorticoid use** among patients with rheumatoid arthritis (RA) the year following first visit in DANBIO.

INTRODUCTION
Glucocorticoids are often used as bridging therapy for patients with rheumatoid arthritis (RA) and are linked to increased risk of infections among patients with RA [1, 2]. The Danish National Prescription registry provides detailed drug information on redeemed prescriptions, but not daily physician prescribed dose. **Thus, many registry studies relies on determining drug exposure based on redeemed drug quantity.** With the detailed information registered in hospital records and physician notes in Danish Rheumatic Quality Registry, DANBIO about prescribed glucocorticoid. Estimated glucocorticoid dosage based on redeemed prescriptions can be validated.

CONCLUSION
The rWTD algorithm showed the best agreement with physician-recorded glucocorticoid treatment in hospital records and DANBIO. This approach enables valid estimation of oral glucocorticoid exposure from routinely collected prescription data in records and DANBIO and expands the opportunities for nationwide monitoring of treatment quality and patient outcomes.

RESULTS
Among 6,074 patients identified from nationwide prescription registries, the **DAS28-CRP-adjusted rWTD** (70th percentile, parameters from calendar year 2018) **showed the best overall performance** (Table 1), with minimal systematic bias (RD: -0.07%). Although the DDD approach yielded the narrowest limits of agreement (LOAR: 10.77) and the crude WTD model achieved the highest specificity (0.98), both were associated with substantially greater systematic bias (RD: -26.17% and -53.17%, respectively).

FUNDING
This work was supported by the Independent Research Fund Denmark [grant number: 10.46540/3101-00146B]; and the Danish Rheumatism Association [grant number: R221-A8133]. The funding had no influence on the design or content of the study.

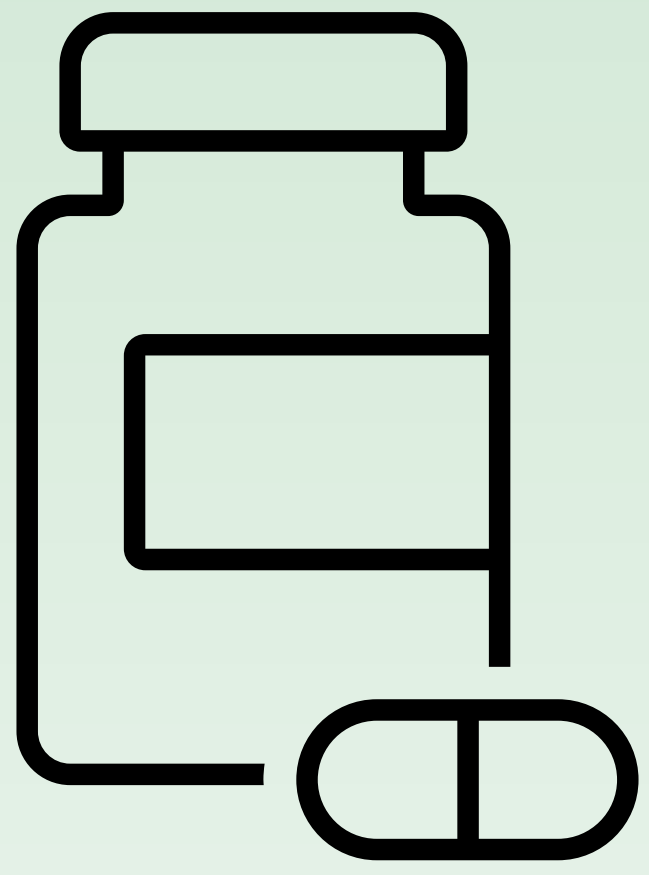


METHODS
For 574 patients with RA, daily oral glucocorticoid use was gathered from hospital records and DANBIO as described in [3] (validation population). The sample was used to validate estimated daily glucocorticoid use based on redeemed prescriptions recorded in the National Prescription Registry. Three methods to estimate the daily glucocorticoid use were compared,

- 90 days average,
- defined daily dose (DDD),
- and the (reversed) waiting time distribution ((r)WTD) [4].

For the WTD and rWTD four different adjustments (i) **crude**, ii) **tablet and strength adjusted**, iii) **age and sex adjusted**, and iv) **28 joint disease activity score with C-reactive protein (DAS28-CRP), age, and sex adjusted**), was created for six different locations (mean, 50th, 60th, 70th, 80th and 90th percentile) and six different estimation windows consisting of 365 days (2018, 2020, 2022, the year following first registered visit, random starting date after RA diagnose, random starting date within first year). In total, 144 (r)WTD models were validated.

To compare methodologies, difference between estimated dose and actual dose was reported as percentage relative difference (RD). The RD was presented with the corresponding limit of agreement ratio (LOAR), to summarize variation on an individual level. A smaller LOAR indicated a more precise estimate [5, 6].



Implementering af Enhed for Rationel Antibiotika (ERA) på Regionshospital Nordjylland

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Baggrund

Stigende antimikrobiel resistens (AMR) udgør en global trussel mod effektiv moderne medicinsk behandling [1]. Regionshospital Nordjylland (RHN) har etableret et dedikeret team Enhed for Rationel Antibiotika (ERA), der understøtter øvrige afdelinger på hospitalsniveau. (ERA) [2,3].

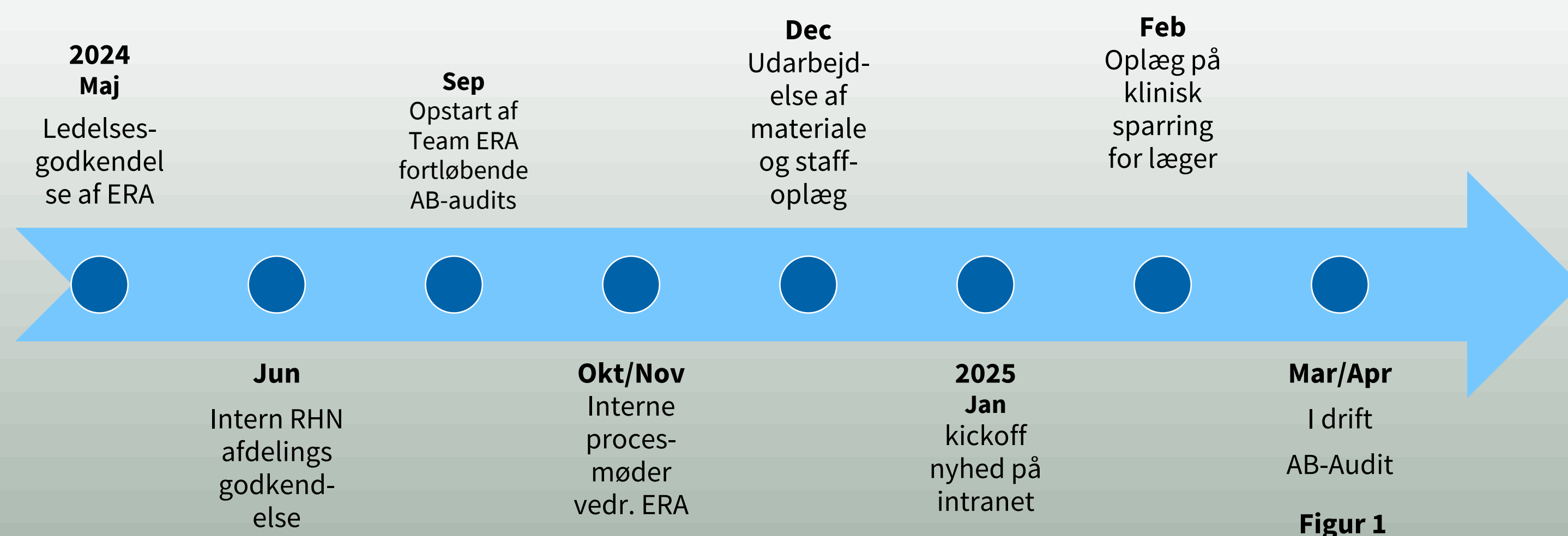
Formål

At optimere antibiotikabehandlingen og derved reducere incidensen af resistensassocierede infektionsgrupper.

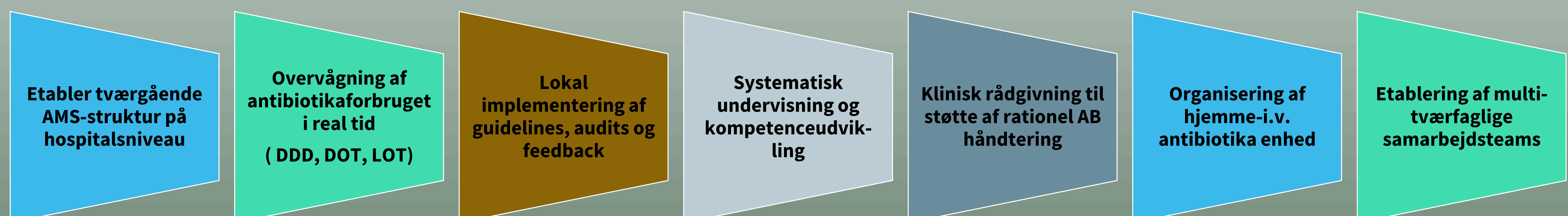
Metode

Baseline-data blev etableret gennem fire antibiotika-audits gennemført over to år på RHN. Den efterfølgende implementering af **ERA-modellen** (jf. figur 2) fulgte en struktureret tidsplan fra maj 2024 til april 2025 (jf. figur 1). Processen initieredes med ledelsesgodkendelse, efterfulgt af en udviklingsfase præget af procesoptimering og udrulning af målrettede nudging-tiltag, herunder interne opslag og lommekort til personalet. I driftsfasen sikres den kliniske forankring gennem ugentlig dedikeret supervision på blandt andet kirurgiske afsnit. Effekten monitoreres løbende via analyse af ordinationsdata, med specifikt fokus på Piperacillin/Tazobactam (Pip/Tazo).

Tids-Proceslinje



ERA-Modellen



Figur 2

Resultater

Baseline status

Audit (n≈60) påviste, at 50 % af patienter i intravenøs behandling var kandidater til enten afslutning eller oral omlægning, mens 30 % af behandlingen afveg fra retningslinjerne.

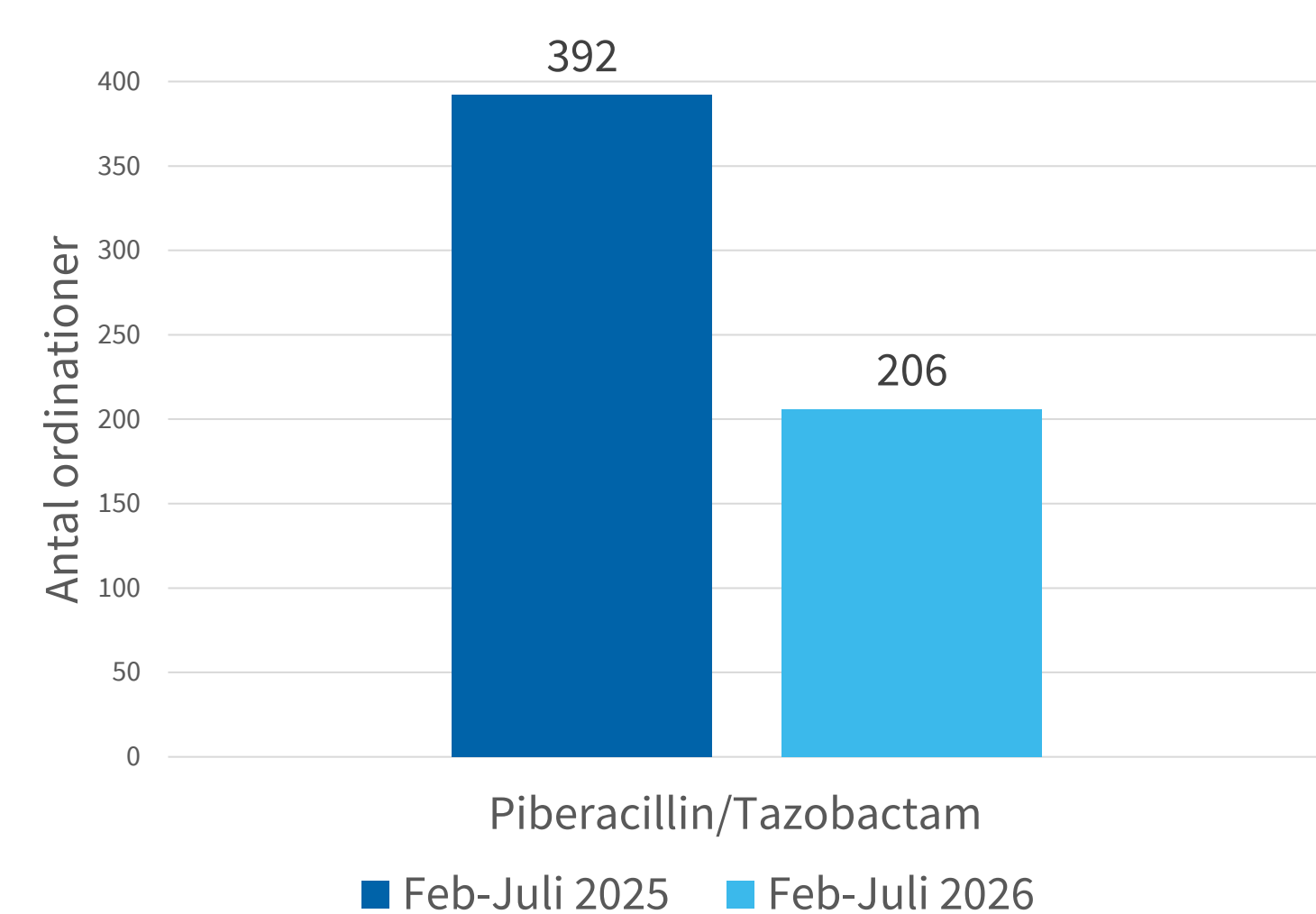
Implementeringseffekt

ERA-indsatsen medførte et markant fald i ordinationer af Pip/Tazo på 47 % (fra 392 til 206 ordinationer i den sammenlignede periode), svarende til en reduktion fra 65 til 34 månedlige ordinationer (jf. figur 3). Denne indsats estimeres at kunne spare ca. 1.000 sengedøgn årlig (Kirurgiske data bør tolkes med forbehold for eksterne faktorer).

Konklusion

Implementeringen af ERA viser en positiv effekt på antibiotikastyringen. Overgangen fra passive 'nudging'-tiltag til en dedikeret, aktiv enhed har medført et markant fald i antibiotikaforbruget og færre afvigelser fra retningslinjerne [4]. Dette styrker den faglige kvalitet og sikrer et stort potentiale for både ressourceoptimering og højere patientsikkerhed.

Udvikling i Pip/Tazo ordinationer, kirurgisk afd. RHN.



Figur 3

47 % reduktion



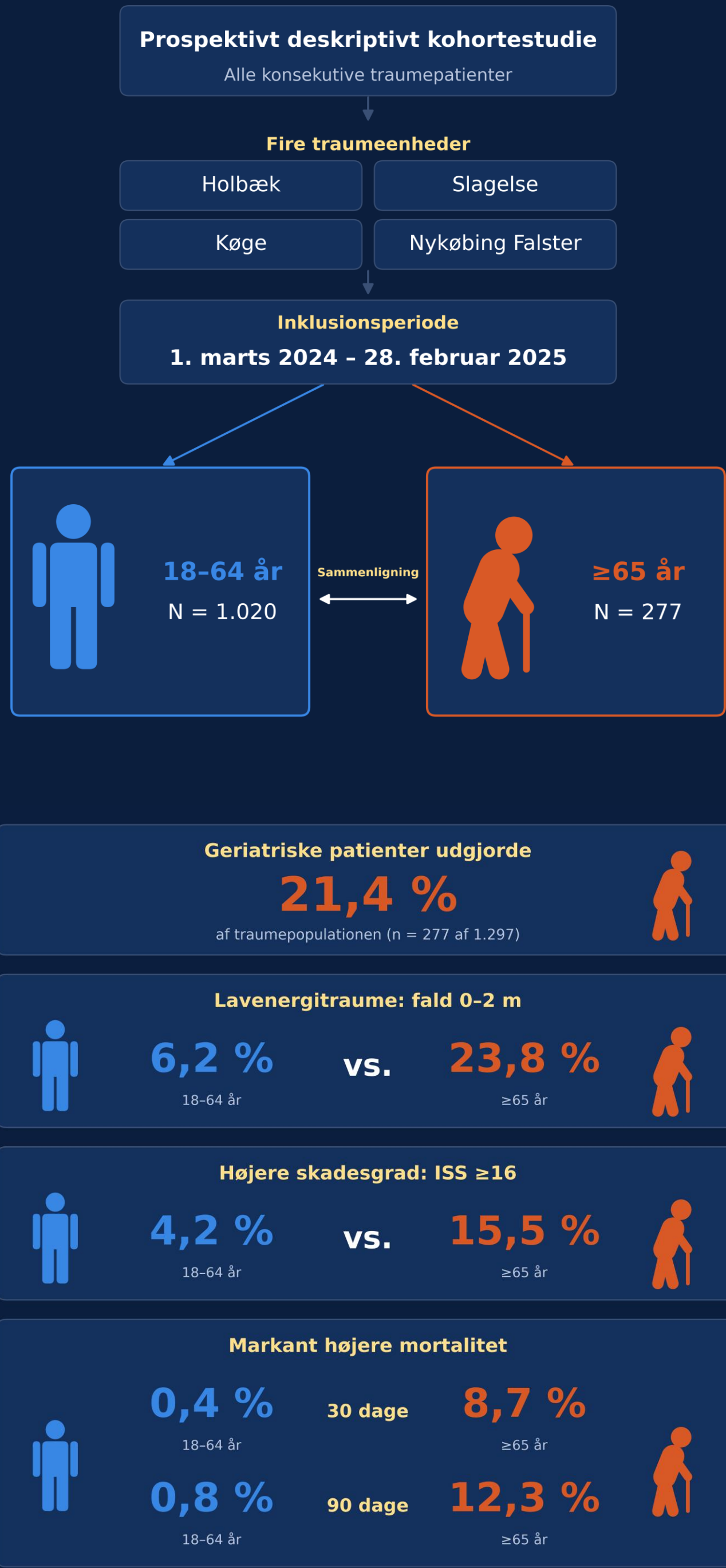
Referencer

- 1Antimicrobial resistance
- 2National handlingsplan for antimikrobiel resistens hos mennesker
- 3Truslen fra resistente bakterier vokser - det kræver international handling
- 4Antibiotikaguide - Anbefalet initial behandling af udvalgte samfundserhvervede infektioner hos immunkompetente voksne
- 5Antibiotic stewardship: reducerede forbruget af antibiotika til ældre skrøbelige borgere | Ugeskriftet.dk
- 6Antimicrobial Stewardship - DSKM

GERIATRISKE TRAUMEPATIENTER: ET PROSPEKTIVT OBSERVATIONELT KOHORTESTUDIE

Introduktion

Andelen af geriatriske traumepatienter stiger, men data stammer primært fra store traumecentre. Formålet var at belyse forskelle mellem geriatriske og øvrige voksne traumepatienter på lokale traumeenheder.



Konklusion

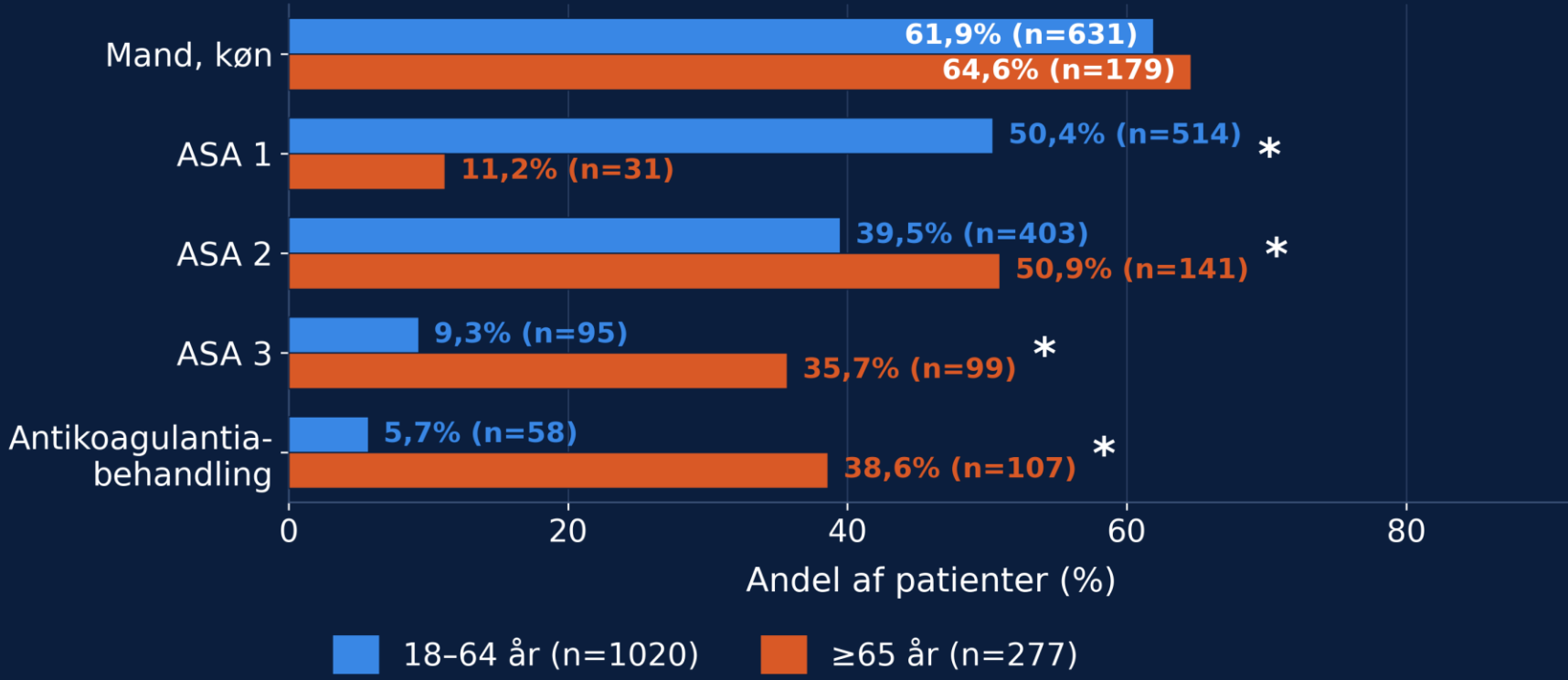
Den geriatriske traumepopulation er karakteriseret ved en højere andel lavenergitraumer, øget skadesgrad og ringere outcome sammenlignet med den øvrige voksne traumepopulation.

Perspektiver

- Alder, komorbiditet og/eller frailty inddrages i traumetriage.
- Inddragelse af medicinske specialer i det posttraumatiske indlæggelsesforløb.
- Fokus på faldprofylakse hos risikogrupper.

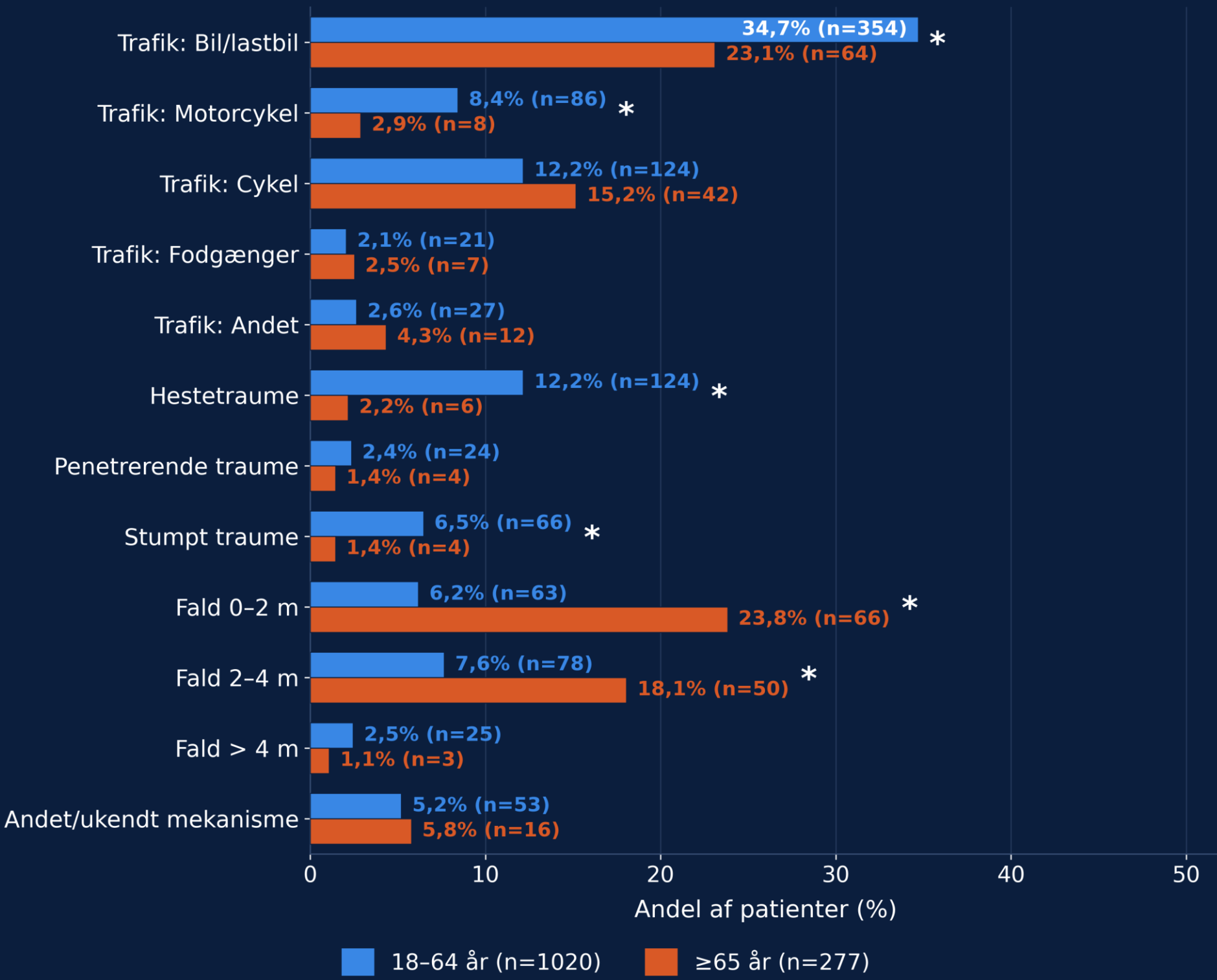
Figur 1. Demografi og komorbiditet

18-64 år (N=1.020) vs. ≥65 år (N=277). * = signifikant forskel (p<0,05)



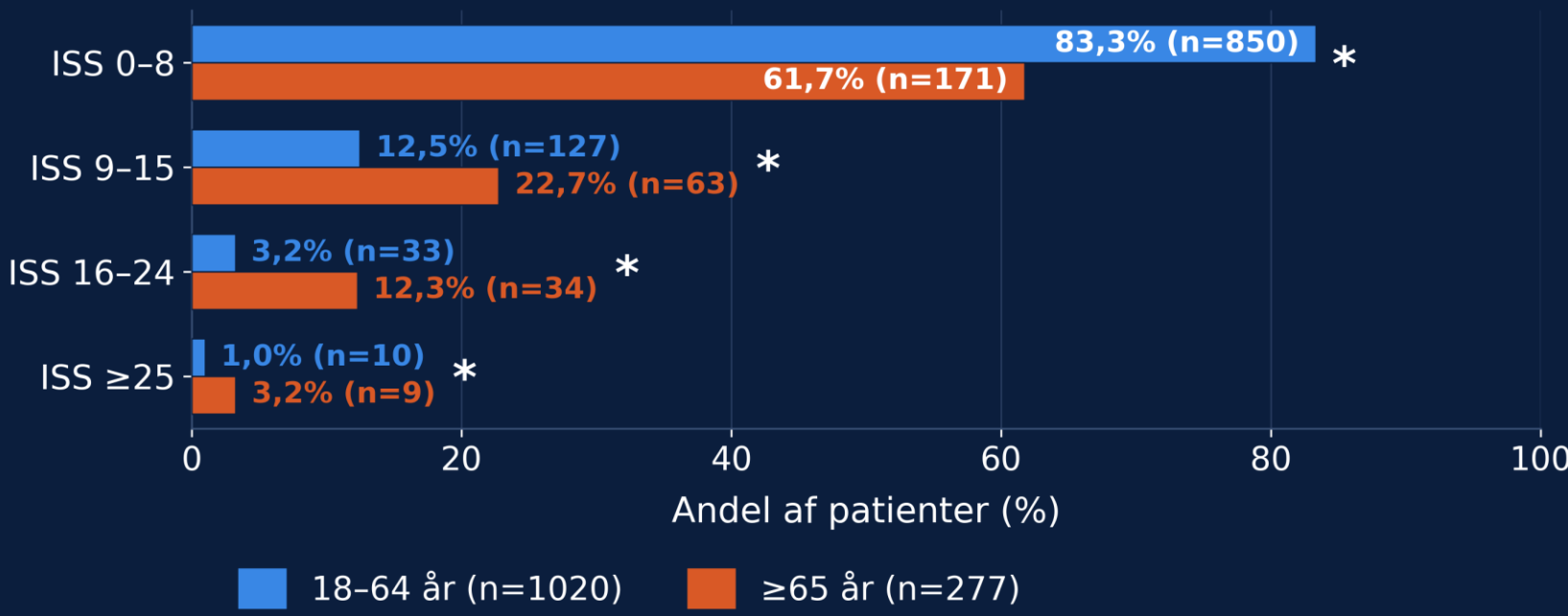
Figur 2. Traumemekanisme

18-64 år (N=1.020) vs. ≥65 år (N=277). * = signifikant forskel (p<0,05)



Figur 3. Skadesgrad (ISS)

18-64 år (N=1.020) vs. ≥65 år (N=277). * = signifikant forskel (p<0,05)



Oscar Hoch Engelund¹, Amalie Elisabeth Thiele-Nygaard³, Thea Palsgaard Møller^{2,3,4}, Tore Gyllenborg Larsen¹, Thor Buch Grønlykke⁵, Sofia King⁶, Emil Ørskov Ipsen^{7,8}, Emma Roginski Lauritzen², Ida Lang Andersen⁷, Kim Zillo Rokamp^{1,4}.

1. Anæstesiologisk og Intensiv Afdeling, Sjællands Universitetshospital, Nykøbing Falster, Danmark. 2. Anæstesiologisk og Intensiv Afdeling, Holbæk Sygehus, Danmark. 3: Præhospitalt Center Region Sjælland, Danmark. 4: Institut for Klinisk Medicin, Københavns Universitet, Danmark. 5: Medicinsk Afdeling, Sjællands Universitetshospital, Nykøbing Falster, Danmark. 6: Anæstesiologisk Afdeling, Sygehusene i Næstved, Slagelse og Ringsted, Danmark. 7: Anæstesiologisk og Intensiv Afdeling, Sjællands Universitetshospital, Køge, Danmark. 8: Anæstesiologisk Afdeling, Københavns Universitetshospital, Nordsjælland, Hillerød, Danmark.

Survival and hospital admission in patients with rheumatoid arthritis and lung cancer.

Bergur Magnussen, Morten Ladekarl, Lene Wohlfahrt Dreyer, Lene Mellemkjær, Weronika Szejiniuk, Salome Kristensen, Rasmus Westermann .

Center of Rheumatic Research Aalborg (CERRA), Department of Rheumatology Aalborg University Hospital, Department of Clinical Medicine, Aalborg University.

Funders



GIGT
foreningen

NEYE

BACKGROUND

RA and lung cancer

While it is known that patients with RA are at an increased risk of developing lung cancer (LC), less is known about how an RA diagnosis might affect the clinical outcomes of patients with LC.

Immune check point inhibitor

Due to exclusion of RA patients in the clinical trials of most immune check point inhibitors (ICIs), there is very little data on how well this treatment works in an RA population.

OBJECTIVES

The aim was to evaluate the clinical outcomes of patients with RA and LC compared to patients without RA.

Outcomes investigated:

- Overall survival
- Hospitalization burden
- Number of serious infections

METHODS

Population

This registry-based cohort consisted of patients with a LC diagnosis in the DLCR between 2006-2024

DANBIO

DANBIO was used to identify which patients had an RA diagnosis prior to LC

Matching

Patients with RA were matched 1:10 to patients without RA on age, sex, year of LC, and cancer stage.

RESULTS

We identified 927 patients with RA and LC and 9270 matched comparators. Clinical outcomes were similar between patients with RA and without RA. 5-year overall survival was 25.8% in patients with RA and 29.0% in patients without RA. We found that patients with RA had a higher risk of serious infections with an **IRR of 1.20 (95% CI 1.14;1.25)**

Looking at patients treated with ICIs we found that overall survival was similar between those with RA and no RA but patients with RA had a higher hospitalization burden with an **IRR of 1.51 (95%CI 1.40;1.63)**

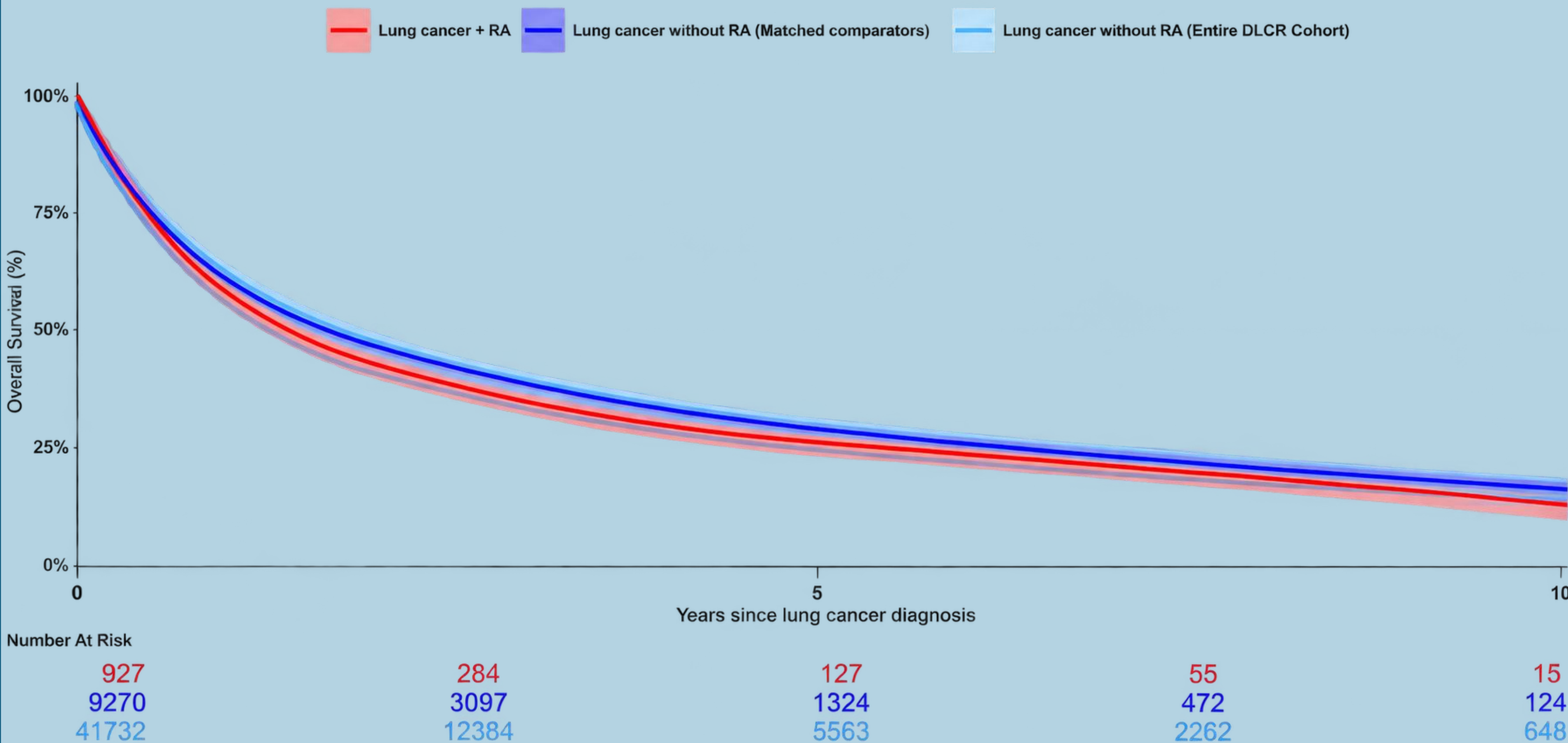


Figure 1: Kaplan-Meier figure of overall survival

Conclusion

Having an RA diagnosis does not worsen overall survival for lung cancer – 1,3 and 5-year survival was similar even after matching on various covariates. **Patients with RA and lung cancer have a higher hospitalization burden compared to patients without RA** – indicating that patients with RA might be at higher risk of treatment related side effects.

Contact information

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Improving Outcomes For Adult Patients Undergoing Ambulatory Surgery Through Structured Evidence-based PDNV Risk Management: A Quality Improvement Pilot Study



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Background / Aim

Post discharge nausea and vomiting (PDNV) is a well-documented postoperative complication, occurring in about 37% of patients after hospital discharge, especially following surgical procedures. This issue is particularly relevant in ambulatory surgery, where patients are discharged on the same day and may lack immediate access to medical care if symptoms such as nausea or vomiting develop. Many of these patients are at elevated risk for PDNV, often due to opioid analgesics used to manage postoperative pain.

The Fourth Consensus Guidelines for the Management of Postoperative Nausea and Vomiting highlights the importance of using standardized risk scoring systems to guide prophylactic interventions. These tools help healthcare providers identify patients most likely to develop PDNV, enabling targeted prophylactic treatment to reduce symptoms and improve outcomes (PMID: 32467512). The guidelines recommend reassessing PDNV risk scores before discharge to ensure appropriate intervention, particularly since PDNV often occurs after patients leave the post-anesthesia care unit (PACU). This pilot study aimed to explore the application of these guidelines in clinical practice, emphasizing their integration into routine PACU workflows to enhance patient recovery and safety.

The aim of this pilot study was to evaluate the impact of implementing evidence-based PDNV guidelines in the PACU for ambulatory surgery patients. The focus was on identifying high-risk individuals using risk scores and determining whether targeted prophylactic treatment could reduce PDNV through the second postoperative day. Additionally, the study compared the effects of two opioids oxycodone and morphine on PDNV outcomes.

Method

This observational prospective pilot study followed a predefined implementation protocol and took place at the PACU, SUH Nykøbing F. A convenience sample of N=101 adult patients (≥18 years), scheduled for ambulatory surgery, verbally communicative, and assigned a PDNV risk score ≥2, was included. Waiver for Quality Improvement pilot study used: REG-11411887.

Treatment, groups:

PDNV score of 2:	24 hours treatment	1-drug
PDNV score of 3-5:	48 hours treatment	2-drug

Medication:

5-HT3 receptor antagonist	4 MG, tablet
Dexamethasone	4 MG, tablet

Follow-up, phone interview:

PDNV score of 2:	24 hours follow-up
	10 predefined questions

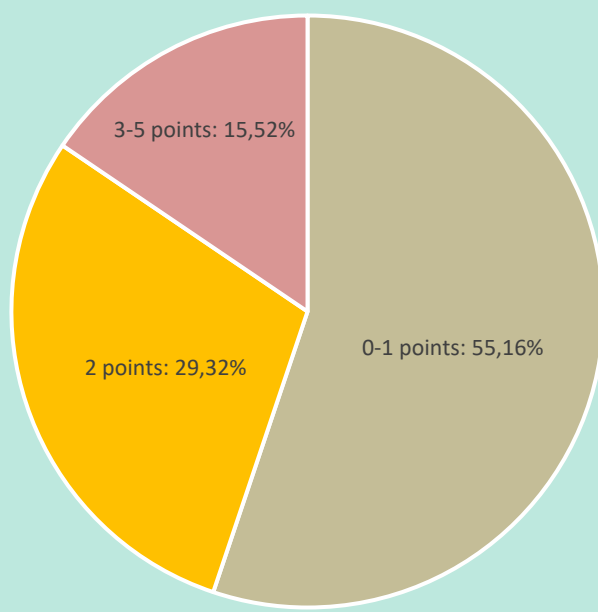
PDNV score of 3-5:	48 hours follow-up
	10 predefined questions

Setting / Participants

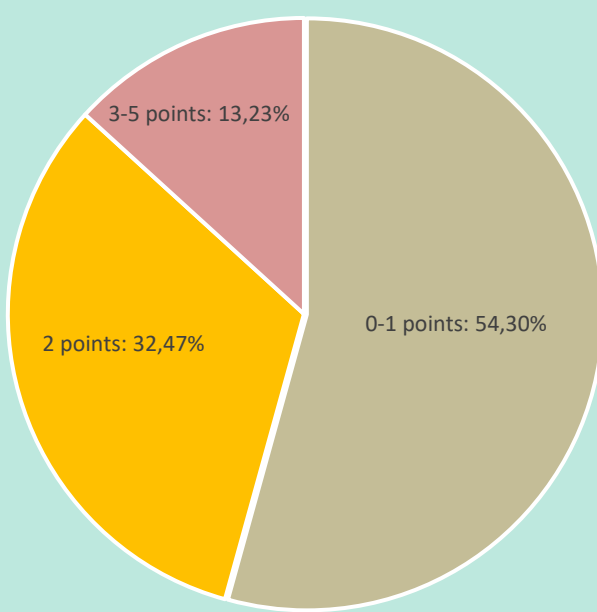
The study was conducted in PACU SUH Nykøbing F. and data was collected between 17.01.2024 and 17.07.2024. Between 17.01.2024 and 17.04.2024 the patients received Oxycodone (G1) as chosen postoperative opioid. Between 18.04.2024 and 17.07.2024 the patients received Morphine (G2) as chosen postoperative opioid.

The convenience sample of patients was ≥ 18 years, with a risk score for PDNV, scheduled for ambulatory surgery, and able to communicate verbally. N: 101 patients were included in this analysis.

G1 - Oxycodone group n=49
PDNV Risk Factor points



G2 - Morphine group n=52
PDNV Risk Factor points



Known PDNV risk factors in adults are; female, age <50 years, history of PONV (Postoperative Nausea and Vomiting), use of opioids in PACU, nausea in PACU. Each factor is assigned a value of one point, with the total sum of points determining whether treatment is warranted.

Results

>78% of the included patients took the dispensed medication as planned in both groups, with G1 reporting 78.7% and G2 reporting 84.6%, consistently observed at both the 24-hour and 48-hour time points.

Among the patients who took their medication, the incidence of vomiting was less than or equal to 10%, consistent for both the 24-hour and 48-hour time points.

There was a statistically significant difference in vomiting incidence between the groups (p<0.001), with Group 1 exhibiting a rate of 8.2% compared to 22.5% in Group 2, consistent for both the 24-hour and 48-hour time points.

At the 24-hour time point, 57.4% of patients reported no nausea, while 42.6% experienced nausea, as evaluated using the Numerical Rating Scale (NRS) ranging from 0 to 10, across both groups G1 and G2.

At the 48-hour time point, both groups exhibited nearly identical outcomes, with minimal differences in the measured variables. For the purposes of this study, an NRS score of 1 or higher was classified as a positive indication of nausea.

At the 24 and 48-hour time points, over 75% of patients reported positive wellbeing, as assessed using the Numerical Rating Scale (NRS) ranging from 0 to 10, across both groups G1 and G2. For the purposes of this study, an NRS score of 5 or higher was classified as a positive indication for positive wellbeing.

Discussion

The results suggest a need for further investigation. However, the evidence-based guideline for preventing postoperative delayed nausea and vomiting has been shown to reduce the incidence of nausea and vomiting significantly.

Furthermore, the selected opioid choice appears to play a significant role in adverse outcomes, with one regimen associated with a lower incidence of vomiting.

Considering implementing this guideline as a fundamental care component for ambulatory surgery patients is worthwhile.

By adhering to these recommendations, we can enhance patient outcomes, minimize discomfort, and improve overall satisfaction with the surgical experience. Integrating these guidelines into clinical practice aligns with best practices in perioperative care and adheres to the Safe Brain Initiative (SBI) approach, ultimately enhancing the management of postoperative delayed nausea and vomiting in ambulatory surgery patients.

