

# ANNUAL REPORT 2022

## CENTER FOR CLINICAL EPIDEMIOLOGY

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OUH  
Odense  
University Hospital

Region of  
Southern Denmark

  
UNIVERSITY OF SOUTHERN DENMARK

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# WELCOME

We welcome everybody with an interest in clinical epidemiology and data analysis. We ask anyone with a project, advisory task or research project, in the need of assistance within clinical epidemiology and data analysis, to contact us.

We contribute to evidence based medicine on the prognosis of patients. The vision of Center for Clinical Epidemiology is to be known and respected for projects and research within clinical epidemiology at an international level, and to provide expert knowledge within a wide range of diseases and clinical epidemiological methods to solve issues regarding patient prognosis. We want the staff at the Center for Clinical Epidemiology to be desirable collaborators in local, regional, national, and international projects and research activities.

Our mission is to ensure that all clinical decisions in the patient treatment are evidence-based. We focus on research that can be applied and implemented in daily clinical practice.

Center for Clinical Epidemiology handles the following activities:

1. Projects and consultancy services within clinical epidemiology and data analysis
2. Clinical epidemiological research
3. Special projects related to clinical epidemiology in public sector services
4. Academic work connected to the Department of Clinical Research, University of Southern Denmark

Apart from the above activities, the center includes the RKKP (the regional clinical quality program - the Danish Clinical Registries).

In 2022 we published 43 peer reviewed articles in international medical journals, and we have brought external fundraising into a special focus of interest.

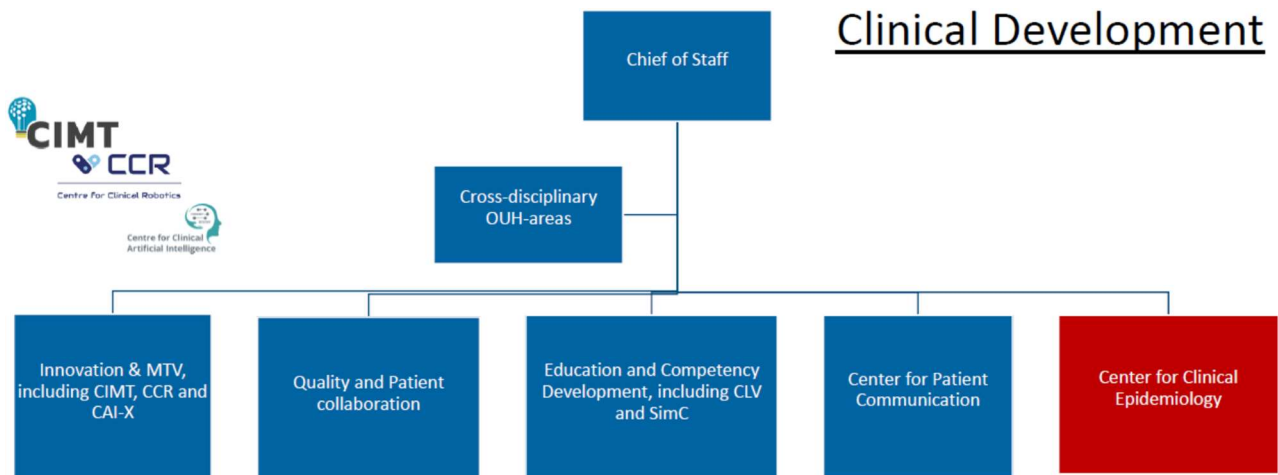
Bente Mertz Nørgård

Professor and head of Center for Clinical Epidemiology and the Research Unit of Clinical Epidemiology

# ORGANIZATION

The center is affiliated with Clinical Development, Odense University Hospital, as an independent unit and all research activities from the research unit refer to the Department of Clinical Research, University of Southern Denmark.

An overview of the staff at the Center for Clinical Epidemiology is available at our web-site: [Medarbejdere hos CKE \(ouh.dk\)](http://Medarbejdere hos CKE (ouh.dk))



# WORKING RELATIONS

Activities within the following special projects and consultancy tasks in particular have occupied the center's resources in 2022 (the following is not a complete list of consultancy functions):

The cooperation with Emergency Medicine, Odense University Hospital, concerning the daily operation of "The emergency cohort of Southern Denmark" has been ongoing for several years. The database comprises data on all patients admitted via the Emergency Medicine Units in the Region of Southern Denmark; the project is based on a cooperation with Professor Annmarie Lassen established in 2012 and is to be continued also in 2023.

We have a consultancy agreement with Professor Carsten Bindslev-Jensen and Professor Charlotte Gotthard Mørtz (Dermatology and Allergy, OUH). During the last years we have supported a clinical database (AC Basen, OUH) with academic data management (new data integrations, linkage of data, data extraction). The database is hosted at Odense Research Center for Anaphylaxis, Dermatology and Allergy, OUH.

A consultancy agreement with Professor Jesper Ryg, Department of Geriatrics, is ongoing and we analyze data on the complexity of treatment of elder medical and geriatric patients with multimorbidities. The consultancy agreement has also focused on the analyses of data from The Fall Clinic, a specialized outpatient unit offering systematic evaluation and treatment of causes of falling and instability.

Our collaboration with the Professor Jens Fedder, Centre of Andrology and Fertility Clinic, Odense University Hospital Department D, has been ongoing for since 2015. We have joined research funding, collaboration internationally with our adjunct professor in Boston, shared PhD students, and shared pre-graduate students.

Our collaboration with Head of research Isik Somuncu Johansen and The Department of Infectious Diseases, Odense University Hospital, was established in 2017. We have

an ongoing fruitful collaboration with researchers from the department on several projects related to tuberculosis, bacteremia, and sepsis biomarkers.

We have had an advisory cooperation with Professor Berit Schiøttz-Christensen, (Research Unit of General Practice, University of Southern Denmark) on a number of projects with relation to patients with back pain. Such projects include a variety of analyses to determine important prognostic clinical outcomes. Based on the identified prognostic models algorithms are set up to develop individually adapted decision tools, and new projects within machine learning are in pipeline.

In general, for several of our partners within consultancy activities we experience an increasing interest regarding machine learning and artificial intelligence. Therefore, we have increased our general activities within this area and expanded our competences within the overall area related to big data, machine learning and artificial intelligence.

**Regarding all working partners related to research projects please see the chapter "Research activities".**

# RESEARCH ACTIVITIES

**The Research Unit of Clinical Epidemiology** was established in 2009 with the purpose of handling all research and academic activities in the center. The unit is academically affiliated with the Department of Clinical Research at the University of Southern Denmark.

Several of the employees at the Center for Clinical Epidemiology have a formal academic employment at the Department of Clinical Research. We have a clinical professorship, which is also linked to the daily management at the center, and academic affiliations (associate professors) of two biostatisticians and four clinical epidemiologists. Furthermore, we have one clinical epidemiologist in a post.doc. position. The professor of the department, Bente Mertz Nørgård, is also nominated as Senior Epidemiologist at the Brigham and Women's Hospital, Boston, and lecturer, part-time, at Harvard Medical School, and associate editor at a US medical journal (Inflammatory Bowel Diseases).

## **Three adjunct professors**

The Research Unit of Clinical Epidemiology has affiliated three adjunct professors in clinical epidemiology:

Sonia Friedman, MD, Visiting Professor Harvard Medical School and Brigham and Women's Hospital, Boston. Sonia Friedman is an expert within chronic inflammatory bowel disease and reproduction issues. At the same time, Sonia Friedman is an associated professor at Harvard University, Boston.

Pedro Manuel Sarmiento Rodrigues Póvoa, Unidade de Cuidados Intensivos Polivalente, MD, Hospital de São Francisco Xavier, Lisbon. Pedro Póvoa is an expert researcher within areas related to intensive care and patients suffering from sepsis. Pedro Póvoa has especially focused on the importance of C-reactive protein of which daily records exceed a single count in monitoring the patient's condition.

Fernando Godinho Zampieri, MD, HCor-Hospital do Coração, São Paulo, Brazil.

Fernando Zampieri is an expert researcher within critical care medicine and especially focuses on critically ill patients and enhanced biostatistical models.

### **Research areas**

The employees at Center for Clinical Epidemiology conduct their own initiated and funded research projects in collaboration with domestic and foreign researchers. Our research is mainly within the following areas (for the specific publications please refer to the last chapter 'Publications'):

- Covid-19
- Machine learning and artificial intelligence
- Cancer
- Acute medicine and intensive care
- Sepsis
- Chronic inflammatory bowel disease
- Human reproduction
- Chronic diseases in general
- Autoimmune diseases
- Obstetrics and gynecology
- Psychiatry
- Geriatrics
- Social medicine

For more details on our research areas, we kindly refer to our research strategy:

[Forskning \(ouh.dk\)](https://www.ouh.dk/forskning)



# PHD-STUDENTS

## **Phd-students supervised by Center for Clinical Epidemiology staff members, 2022**

- Sara Bønløkke Simonsen: Project description for the study "Risk of cancer among women with prior cervical precancer: a register-based study". Ongoing.
- Line Holdgaard Thomsen: Risk factors of epithelial ovarian cancer among women with endometriosis: An epidemiologic study based on Danish registries and an endometriosis specific questionnaire. Ongoing.
- Karen Husby. Tentative title: "Pelvic organ prolapse surgery and risk of gynecological cancer". Ongoing.
- Alice Markussen, "Real-world treatment patterns and outcomes in patients with biliary tract cancer: Danish nationwide population-based analysis". Ongoing.
- Mette Louise Andersen: Women with multiple sclerosis and pregnancy and child outcomes. Ongoing.
- Julie Rasmussen: Psychosocial consequences for patients diagnosed with inflammatory bowel disease at young age

# ACADEMIC ASSESSMENT

In 2022 the staff at the Center for Clinical Epidemiology has

- worked as reviewers for scientific journals
- evaluated research protocols for local, national, and international scientific foundations
- associate and guest associate editors for the journal "Inflammatory Bowel Diseases"
- participated in scientific congresses nationally and internationally
- given scientific oral presentations
- undertaken assessments of PhD protocols and dissertations for the Faculty of Health Sciences at the University of Southern Denmark and other universities in Denmark
- acted as chairman of the evaluation committee of PhD dissertations
- acted as board member of the evaluation committee for a clinical professorship
- undertaken assessments for scientific positions at universities in Denmark
- been appointed as censors and undertaken censorship tasks for the medical educations in Denmark
- supervised PhD students
- acted as members of OUH's Forskningsråd (Odense University Hospital Research Council)
- board membership of the Danish Association of Occupational Medicine (DAMO)

# TEACHING

The staff at the center has trained, supervised, and examined a large number of bachelor students and master's thesis students at the Faculty of Health Sciences at University of Southern Denmark. This comprises medical students and Master of Science in Health Science.

# FUNDINGS

The following foundations have supported a number of projects during 2022:

Louis Hansen Fonden

Trygfonden

Beckett Fonden

Aase og Ejner Danielsens Fond

Helsefonden

Overlægerådets Forskningsfond

Novo Nordisk

Merck

RSYD frie midler

Pfizer

Takeda

Janssen

Dagmar Marshall

# PUBLICATIONS

## Scientific publications

In 2022, 43 papers were published in peer-reviewed journals. Please refer to **the list below** or our web-site: [Pure 5.25.2 - Publikationer - Klinisk Epidemiologi \(sdu.dk\)](#)

### 1. Risk Factors for Voluntary Childlessness in Men and Women With Inflammatory Bowel Disease

Winter, R. W., Boyd, T., Chan, W. W., Levy, A. N. & [Friedman, S.](#), 1. dec. 2022, I: Inflammatory Bowel Diseases. 28, 12, s. 1927–1931

### 2. Correction: Co-infection and ICU-acquired infection in COVID-19 ICU patients: a secondary analysis of the UNITE-COVID data set (Critical Care, (2022), 26, 1, (236), 10.1186/s13054-022-04108-8)

Conway Morris, A., Kohler, K., De Corte, T., Ercole, A., De Grooth, H-J., Elbers, P. W. G., [Povoa, P.](#), Morais, R., Koulenti, D., Jog, S., Nielsen, N., Jubb, A., Cecconi, M., De Waele, J. & ESICM UNITE-COVID investigators, dec. 2022, I: Critical care (London, England). 26, 249.

### 3. Practices in sedation, analgesia, mobilization, delirium, and sleep deprivation in adult intensive care units (SAMDS-ICU): an international survey before and during the COVID-19 pandemic

Luz, M., Brandão Barreto, B., de Castro, R. E. V., Salluh, J., Dal-Pizzol, F., Araujo, C., De Jong, A., Chanques, G., Myatra, S. N., Tobar, E., Gimenez-Esparza Vich, C., Carini, F., Ely, E. W., Stollings, J. L., Drumright, K., Kress, J., [Povoa, P.](#), Shehabi, Y., Mphandi, W. & Gusmao-Flores, D., dec. 2022, I: Annals of Intensive Care. 12, 9.

### 4. Bacteremia with Anaerobic Bacteria and Association with Colorectal Cancer: A Population-based Cohort Study

[Justesen, U. S.](#), [Nielsen, S. L.](#), [Jensen, T. G.](#), [Dessau, R. B.](#), [Møller, J. K.](#), [Coia, J. E.](#), Andersen, S. L., [Pedersen, C.](#) & [Gradel, K. O.](#), 14. nov. 2022, I: Clinical infectious diseases : an official publication of the Infectious Diseases Society of America. 75, 10, s. 1747–1753

### 5. Does Disease Activity After Induction Treatment With Biologics Predict Short-Term Outcome in Crohn's Disease and Ulcerative Colitis?

[Larsen, M. D.](#), [Nørgård, B. M.](#) & [Kjeldsen, J.](#), 2. nov. 2022, I: Inflammatory Bowel Diseases. 28, 11, s. 1658–1666

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## 6. Adverse Birth and Child Outcomes in Children Fathered by Men Treated with Antidiabetics Prior to Conception: A Nationwide Cohort Study

[Nørgård, B. M.](#), [Fedder, J.](#), [Jølvig, L. R.](#), [Damkier, P.](#) & [Nielsen, J.](#), nov. 2022, I: Journal of Clinical Medicine. 11, 21, 12 s., 6595.

## 7. COVID-19 Infection in Rheumatic Patients on Chronic Antimalarial Drugs: A Systematic Review and Meta-Analysis

Landsteiner de Sampaio Amêndola, I., Aires Pinheiro, J., [Póvoa, P.](#), Cés de Souza Dantas, V. & Serafim, R. B., nov. 2022, I: Journal of Clinical Medicine. 11, 22, 19 s., 6865.

## 8. Impact of Subsyndromal Delirium Occurrence and Its Trajectory during ICU Stay

Serafim, R. B., Dal-Pizzol, F., Souza-Dantas, V., Soares, M., Bozza, F. A., [Póvoa, P.](#), Luiz, R. R., Lapa e Silva, J. R. & Salluh, J. I. F., nov. 2022, I: Journal of Clinical Medicine. 11, 22, 8 s., 6797.

## 9. The safety of paternal and maternal use of 5-aminosalicylic acid during conception and pregnancy: A nationwide cohort study

[Nørgård, B. M.](#), [Friedman, S.](#), [Kjeldsen, J.](#) & [Nielsen, J.](#), nov. 2022, I: Alimentary Pharmacology & Therapeutics. 56, 9, s. 1349-1360

## 10. Mesalazine in Inflammatory Bowel Disease and COVID-19: Hospitalization and Adverse In-Hospital Outcomes Based on Nationwide Data

Kjeldsen, S., [Nielsen, J.](#), [Mertz Nørgård, B.](#) & [Kjeldsen, J.](#), 3. okt. 2022, I: Inflammatory Bowel Diseases. 28, 10, s. 1513-1519

## 11. The role of proteomics and metabolomics in severe infections

[Póvoa, P.](#), Bos, L. D. J. & Coelho, L., 1. okt. 2022, I: Current Opinion in Critical Care. 28, 5, s. 534-539

## 12. Lifetime Exposure to Welding Fumes and Risk of Some Rare Cancers

Kendzia, B., [Kaerlev, L.](#), Ahrens, W., Merletti, F., Eriksson, M., Guénel, P., Lynge, E., Costa-Pereira, A., Suárez-Varela, M. M., Jöckel, K-H., Stang, A. & Behrens, T., 28. sep. 2022, I: American Journal of Epidemiology. 191, 10, s. 1753-1765

## 13. Relationship between corticosteroid use and incidence of ventilator-associated pneumonia in COVID-19 patients: a retrospective multicenter study

Saura, O., Rouzé, A., Martin-Loeches, I., [Povoá, P.](#), Kreitmann, L., Torres, A., Metzeldard, M., Du Cheyron, D., Lambiotte, F., Tamion, F., Labruyere, M., Boulle Geronimi, C., Luyt, C. E., Nyunga, M., Pouly, O., Thille, A. W., Megarbane, B., Saade, A., Magira, E., Llitjos, J. F., & [23 flere](#), 27. sep. 2022, I: Critical Care. 26, 11 s., 292.

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#### **14. A new possibility: gene-expression-based diagnostics for presymptomatic diagnosis of hospital-acquired infections**

Moita, L. F., Sweeney, T. E. & [Póvoa, P.](#), sep. 2022, I: Intensive Care Medicine. 48, 9, s. 1206–1207

#### **15. Antibiotic prophylaxis in ICU patients: should I do or not?**

Leone, M., Righy, C. & [Póvoa, P.](#), sep. 2022, I: Intensive Care Medicine. 48, 9, s. 1215–1217

#### **16. Cardiovascular diseases in elderly survivors of diffuse large B-cell lymphoma: a Danish population-based cohort study**

[Juul, M. B.](#), [Jelicic, J.](#), [Anru, P. L.](#), [Engberg, H.](#), Hammershøj Jensen, P., [Kristensen, H. B.](#), Baech, J., [Clausen, M. R.](#), Gang, A. O., [Munksgaard, L.](#), El-Galaly, T. C., [Frederiksen, H.](#) & [Stauffer Larsen, T.](#), sep. 2022, I: Leukemia and Lymphoma. 63, 9, s. 2074–2083

#### **17. Paternal use of medications for inflammatory bowel disease and the risk of hospital-diagnosed infections in the offspring: A nationwide cohort study**

[Friedman, S.](#), [Garvik, O. S.](#), [Nielsen, J.](#) & [Nørgård, B. M.](#), sep. 2022, I: Alimentary Pharmacology and Therapeutics. 56, 5, s. 823–830

#### **18. Co-infection and ICU-acquired infection in COVID-19 ICU patients: a secondary analysis of the UNITE-COVID data set**

Conway Morris, A., Kohler, K., De Corte, T., Ercole, A., De Grooth, H. J., Elbers, P. W. G., [Povoa, P.](#), Morais, R., Koulenti, D., Jog, S., Nielsen, N., Jubb, A., Cecconi, M., De Waele, J. & ESICM UNITE-COVID investigators, 3. aug. 2022, I: Critical care (London, England). 26, 13 s., 236.

#### **19. Antibiotic treatment in patients with sepsis: a narrative review**

Plata-Menchaca, E. P., Ferrer, R., Ruiz Rodríguez, J. C., Morais, R. & [Póvoa, P.](#), aug. 2022, I: Hospital Practice. 50, 3, s. 203–213

#### **20. Correction to: Clinical and organizational factors associated with mortality during the peak of first COVID-19 wave: the global UNITE-COVID study (Intensive Care Medicine, (2022), 48, 6, (690–705), 10.1007/s00134-022-06705-1)**

Greco, M., De Corte, T., Ercole, A., Antonelli, M., Azoulay, E., Citerio, G., Morris, A. C., De Pascale, G., Duska, F., Elbers, P., Einav, S., Forni, L., Galarza, L., Girbes, A. R. J., Grasselli, G., Gusarov, V., Jubb, A., Kesecioglu, J., Lavinio, A., Delgado, M. C. M., [& 11 flere](#), aug. 2022, I: Intensive Care Medicine. 48, 8, s. 1130–1131

#### **21. Perspectives of patients, family members, health professionals and the public on the impact of COVID-19 on mental health**

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Gardiner, E., Baumgart, A., Tong, A., Elliott, J. H., Azevedo, L. C., Bersten, A., Cervantes, L., Chew, D. P., Cho, Y., Crowe, S., Douglas, I. S., Evangelidis, N., Flemyng, E., Horby, P., Howell, M., Lee, J., Lorca, E., Lynch, D., Marshall, J. C., Gonzalez, A. M., & [21 flere](#), aug. 2022, I: Journal of Mental Health. 31, 4, s. 524–533

## **22. Updated competency-based training in intensive care: next step towards a healthcare union in Europe?**

[Póvoa, P.](#), Martin-Loeches, I., Duska, F. & The CoBaTriCe Collaboration, aug. 2022, I: Intensive Care Medicine. 48, 8, s. 1093–1094

## **23. Editorial: measuring fertility in men with inflammatory bowel disease**

[Friedman, S.](#), jul. 2022, I: Alimentary Pharmacology and Therapeutics. 56, 2, s. 345–346

## **24. Endometrial cancer after the Manchester procedure: a nationwide cohort study**

Husby, K. R., [Gradel, K. O.](#) & Klarskov, N., jul. 2022, I: International Urogynecology Journal. 33, 7, s. 1881–1888

## **25. Remdesivir for the treatment of patients hospitalized with COVID-19 receiving supplemental oxygen: a targeted literature review and meta-analysis**

Beckerman, R., Gori, A., Jeyakumar, S., Malin, J. J., Paredes, R., [Póvoa, P.](#), Smith, N. J. & Teixeira-Pinto, A., 10. jun. 2022, I: Scientific Reports. 12, 11 s., 9622.

## **26. Psychiatric disorders, diagnosed in psychiatric clinics, in patients with back pain: A cohort study**

[Iachina, M.](#), [Ljungdahl, P.](#), [Nørgård, B. M.](#), [Garvik, O.](#), [Stenager, E.](#) & [Schiøttz-Christensen, B.](#), 8. jun. 2022, (E-pub ahead of print) I: Scandinavian Journal of Public Health.

## **27. Physical activity measured by accelerometry in paediatric and young adult patients with inflammatory bowel disease**

[Lund, K.](#), [Larsen, M. D.](#), [Knudsen, T.](#), [Kjeldsen, J.](#), [Nielsen, R. G.](#), [Brage, S.](#) & [Nørgård, B. M.](#), 7. jun. 2022, I: BMC Gastroenterology. 22, 10 s., 290.

## **28. Clinical and organizational factors associated with mortality during the peak of first COVID-19 wave: the global UNITE-COVID study**

Greco, M., De Corte, T., Ercole, A., Antonelli, M., Azoulay, E., Citerio, G., Morris, A. C., De Pascale, G., Duska, F., Elbers, P., Einav, S., Forni, L., Galarza, L., Girbes, A. R. J., Grasselli, G., Gusarov, V., Jubba, A., Kesecioglu, J., Lavinio, A., Delgado, M. C. M., & [11 flere](#), jun. 2022, I: Intensive Care Medicine. 48, 6, s. 690–705

## **29. Healthcare-associated infections in adult intensive care unit patients: Changes in epidemiology, diagnosis, prevention and contributions of new technologies**

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Blot, S., Ruppé, E., Harbarth, S., Asehnoune, K., Poulakou, G., Luyt, C. E., Rello, J., Klompas, M., Depuydt, P., Eckmann, C., Martin-Loeches, I., [Povoa, P.](#), Bouadma, L., Timsit, J. F. & Zahar, J. R., jun. 2022, I: Intensive and Critical Care Nursing. 70, 103227.

### **30. Postpartum surgical complications in women with inflammatory bowel disease after caesarian section: A Danish nationwide cohort study**

[Friedman, S.](#), [Zegers, F. D.](#), [Jølvig, L. R.](#), [Nielsen, J.](#) & [Nørgård, B. M.](#), 10. maj 2022, I: Journal of Crohn's and Colitis. 16, 4, s. 625–632

### **31. Infliximab Is Not Associated With a General Long-Term Weight Gain in Patients With Inflammatory Bowel Disease: A Nationwide Study**

Winter, R. W., [Friedman, S.](#), [Nielsen, J.](#), [Kjeldsen, J.](#), [Nørgård, B. M.](#) & [Larsen, M. D.](#), 1. maj 2022, I: The American Journal of Gastroenterology. 117, 5, s. 777–784

### **32. Increased ambulance on-scene times but unaffected response times during the first wave of the COVID-19 pandemic in Southern Denmark**

Eskol, J. R., [Zegers, F. D.](#), Wittrock, D., [Lassen, A. T.](#) & [Mikkelsen, S.](#), 9. apr. 2022, I: BMC Emergency Medicine. 22, 6 s., 61.

### **33. Choosing antibiotic therapy for severe community-acquired pneumonia**

Martin-Loeches, I., Garduno, A., [Povoa, P.](#) & Nseir, S., 1. apr. 2022, I: Current Opinion in Infectious Diseases. 35, 2, s. 133–139

### **34. Correction to: Relationship between SARS-CoV-2 infection and the incidence of ventilator-associated lower respiratory tract infections: a European multicenter cohort study (Intensive Care Medicine, (2021), 47, 2, (188–198), 10.1007/s00134-020-06323-9)**

Rouzé, A., Martin-Loeches, I., [Povoa, P.](#), Makris, D., Artigas, A., Bouchereau, M., Lambiotte, F., Metzeldard, M., Cuchet, P., Boulle Geronimi, C., Labruyere, M., Tamion, F., Nyunga, M., Luyt, C. E., Labreuche, J., Pouly, O., Bardin, J., Saade, A., Asfar, P., Baudel, J. L., & [22 flere](#), apr. 2022, I: Intensive Care Medicine. 48, 4, s. 514–515

### **35. Association of Body Mass Index With All-Cause Mortality in Acutely Hospitalized Older Patients**

[Ryg, J.](#), [Anru, P. L.](#), [Engberg, H.](#), [Jorgensen, M. G.](#), [Masud, T.](#), [Christensen, K.](#) & [Andersen-Ranberg, K.](#), mar. 2022, I: Journal of the American Medical Directors Association. 23, 3, s. 507–513.e1

### **36. Pelvic organ prolapse following hysterectomy on benign indication: a nationwide, nulliparous cohort study**

Husby, K. R., [Gradel, K. O.](#) & Klarskov, N., mar. 2022, I: American Journal of Obstetrics and Gynecology. 226, 3, s. 386.e1–386.e9

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### 37. Use of Drugs with Anticholinergic Properties at Hospital Admission Associated with Mortality in Older Patients: A Danish Nationwide Register-Based Cohort Study

Sørensen, S. R., Frederiksen, J. D., [Anru, P. L.](#), [Masud, T.](#), Petrovic, M., [Rosholm, J. U.](#) & [Ryg, J.](#), mar. 2022, I: *Drugs – Real World Outcomes*. 9, 1, s. 129–140

### 38. Pancreatic Stone Protein: Review of a New Biomarker in Sepsis

Fidalgo, P., Nora, D., Coelho, L. & [Povoa, P.](#), 18. feb. 2022, I: *Journal of Clinical Medicine*. 11, 4, 1085.

### 39. Predictive value of D-dimer in the clinical outcome of severe COVID19 patients: Are we giving it too much credit?

Cidade, J. P., Coelho, L., Costa, V., Morais, R., Moniz, P., Morais, L., Fidalgo, P., Tralhão, A., Paulino, C., Nora, D., Valerio, B., Mendes, V., Tapadinhas, C. & [Póvoa, P.](#), 11. feb. 2022, I: *Clinical and applied thrombosis/hemostasis : official journal of the International Academy of Clinical and Applied Thrombosis/Hemostasis*. 28, s. 1–7

### 40. The clinical back pain courses described by information available in Danish central registries

[Iachina, M.](#), [Garvik, O. S.](#), [Ljungdahl, P. S.](#), [Wod, M.](#) & [Schjøttz-Christensen, B.](#), 6. jan. 2022, I: *BMC Health Services Research*. 22, 9 s., 36.

### 41. Invasive pulmonary aspergillosis among intubated patients with SARS-CoV-2 or influenza pneumonia: a European multicenter comparative cohort study

Rouzé, A., Lemaitre, E., Martin-Loeches, I., [Povoa, P.](#), Diaz, E., Nyga, R., Torres, A., Metzeldard, M., Du Cheyron, D., Lambiotte, F., Tamion, F., Labruyere, M., Boule Geronimi, C., Luyt, C. E., Nyunga, M., Pouly, O., Thille, A. W., Megarbane, B., Saade, A., Magira, E., & [31 flere](#), 4. jan. 2022, I: *Critical Care*. 26, 14 s., 11.

### 42. Impact of C-reactive protein and albumin levels on short, medium, and long term mortality in patients with diffuse large B-cell lymphoma

[Gradel, K. O.](#), [Larsen, T. S.](#), [Frederiksen, H.](#), [Vinholt, P. J.](#), [Iachina, M.](#), [Póvoa, P.](#), [Zampieri, F. G.](#), [Nielsen, S. L.](#), [Dessau, R. B.](#), [Møller, J. K.](#), [Jensen, T. G.](#), [Chen, M.](#), [Coia, J. E.](#) & [Jelicic, J.](#), 2022, I: *Annals of Medicine*. 54, 1, s. 713–722

### 43. Management of Pregnant Women Hospitalized with a Flare of Inflammatory Bowel Disease

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