

# Kendte, invaliderende og livsbegrænsende gastro-intestinale senfølger. Vi kan reducere omfang betydeligt med en målrettet indsats?

Danske Kræftforskningsdage, Odense, 1. september 2023

Peter Christensen, professor, overlæge, dr.med.

Nationalt forskningscenter for senfølger efter kræft i bækkenorganerne

Mave Tarm Kirurgi, Aarhus Universitetshospital




**AUH Surgery**  
Surgical Research

#DKD2023

#SamarbejdeOmKræft

Aarhus University Hospital



*‘Jeg kunne ikke gå  
en tur med hunden  
uden ....’*

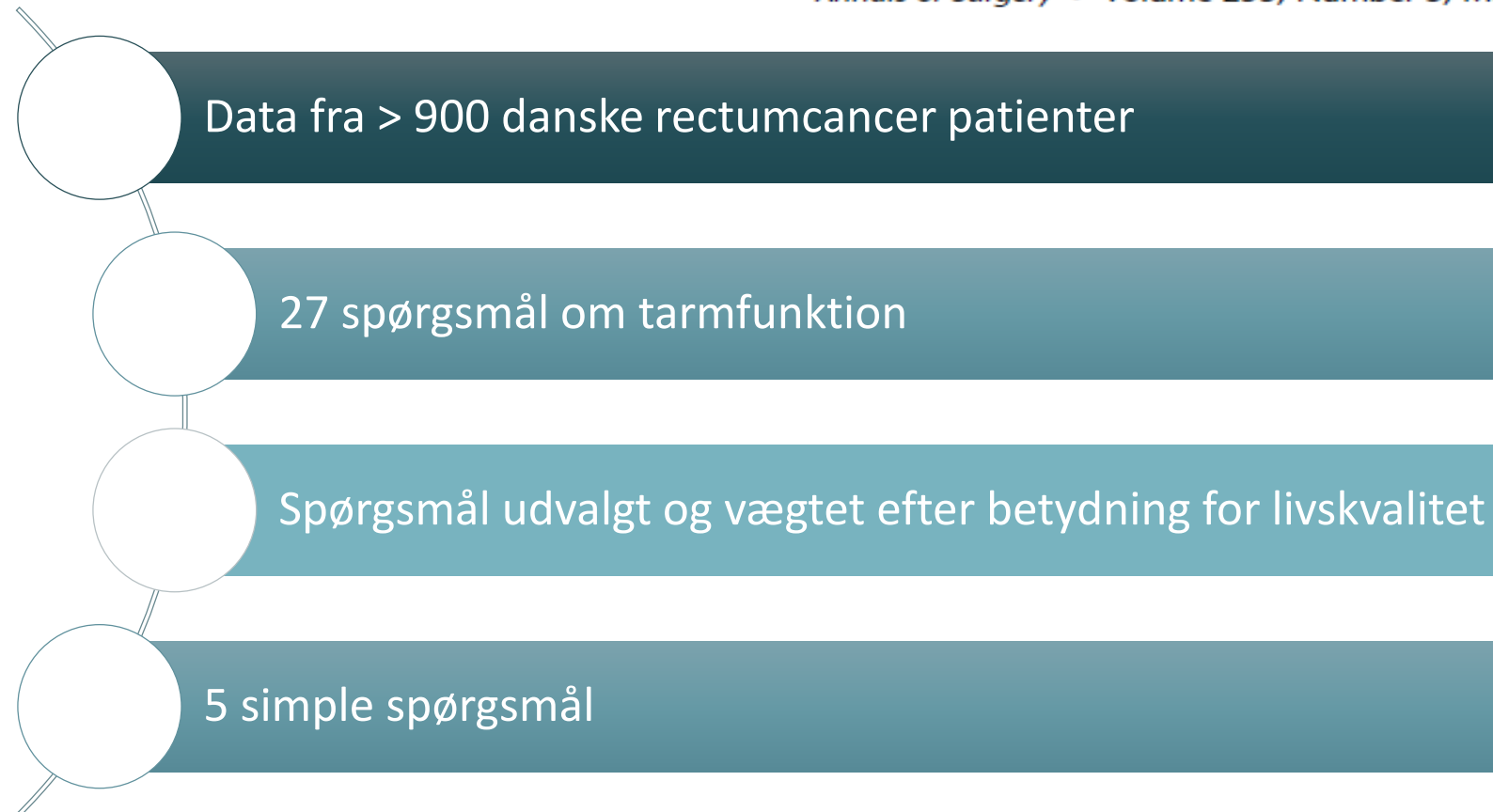
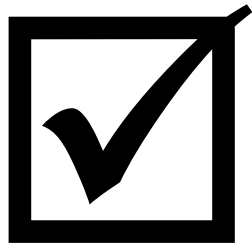


# Low Anterior Resection Syndrome Score

## *Development and Validation of a Symptom-Based Scoring System for Bowel Dysfunction After Low Anterior Resection for Rectal Cancer*

*Katrine J. Emmertsen, MD,\*† and Søren Laurberg, MD\**

*Annals of Surgery • Volume 255, Number 5, May 2012*



# LARS score

• Do you ever have occasions when you cannot control your **flatus** (wind)?

• Do you ever have any accidental **leakage of liquid stool**?

• **How often** do you open your bowels?

• Do you ever have to **open your bowels** within an hour of the last bowel opening?

• Do you ever have such a **strong urge** to open your bowels that you have to rush to the toilet?

- No, never
- Yes, less than once per week
- Yes, at least once per week

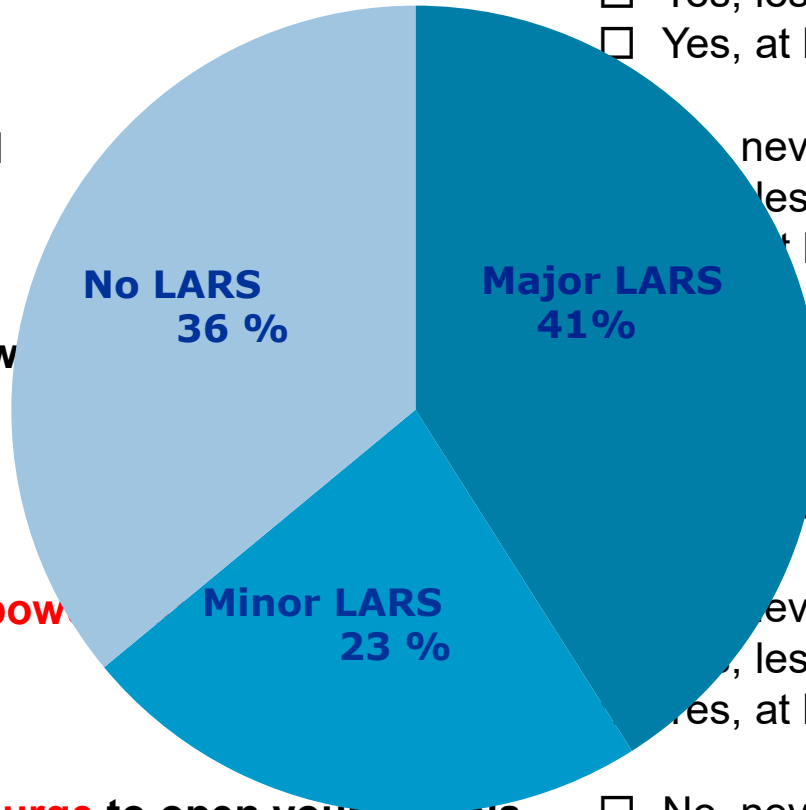
- No, never
- Yes, less than once per week
- Yes, at least once per week

- More than 7 times per day (24 hours)
- 7 times per day (24 hours)
- 6 times per day (24 hours)
- Less than once per day (24 hours)

- No, never
- Yes, less than once per week
- Yes, at least once per week

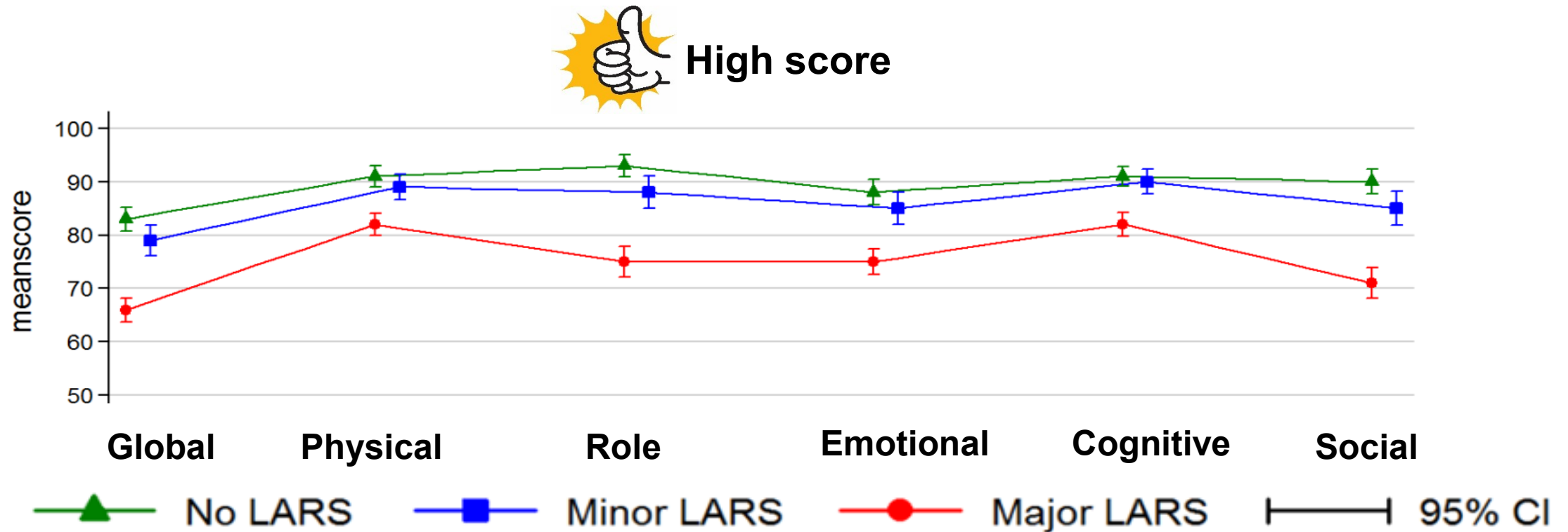
- No, never
- Yes, less than once per week
- Yes, at least once per week

- 0
- 4
- 7
- 0
- 3
- 3
- 4
- 2
- 0
- 5
- 0
- 9
- 11
- 0
- 11
- 16



0-20 = No LARS      21-29 = Minor LARS      30-42 = Major LARS

# Quality of life | LARS vs. EORTC QLQ C30 FUNCTIONAL SCALES





**HELP**

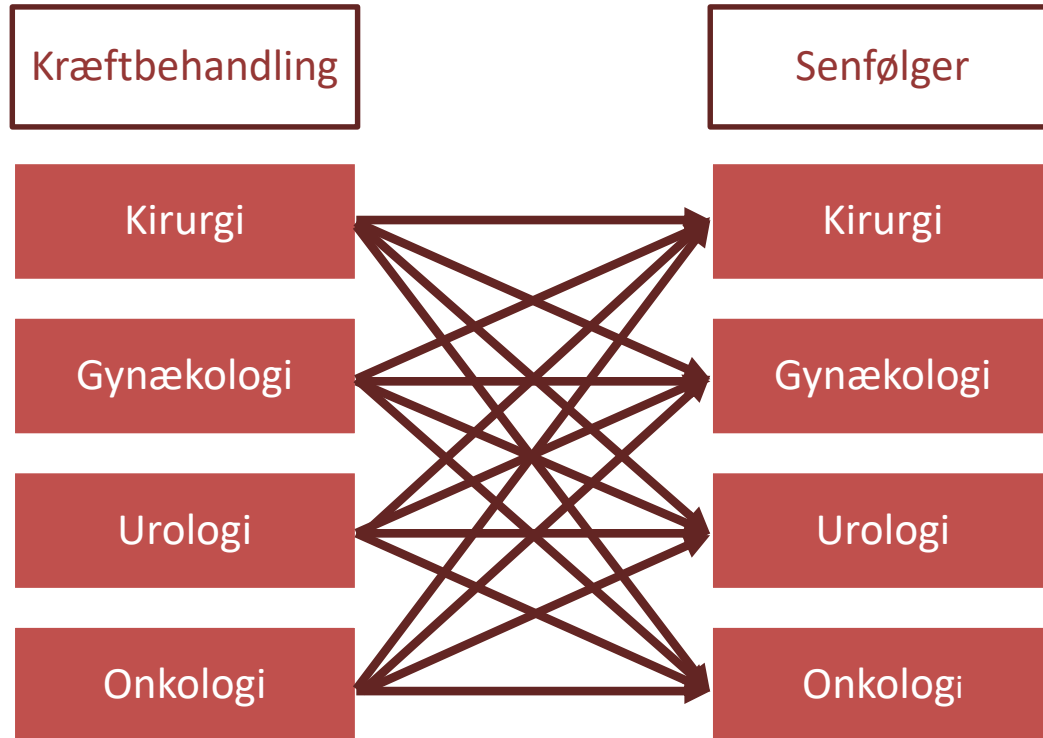
**SUPPORT**

**ADVICE**

**GUIDANCE**

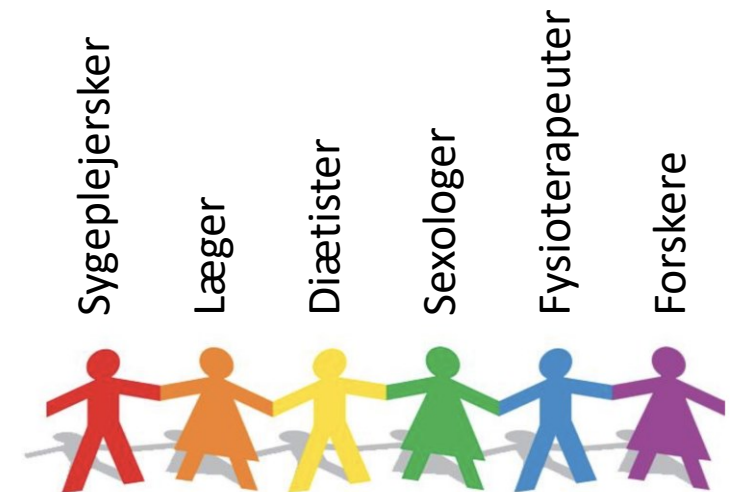
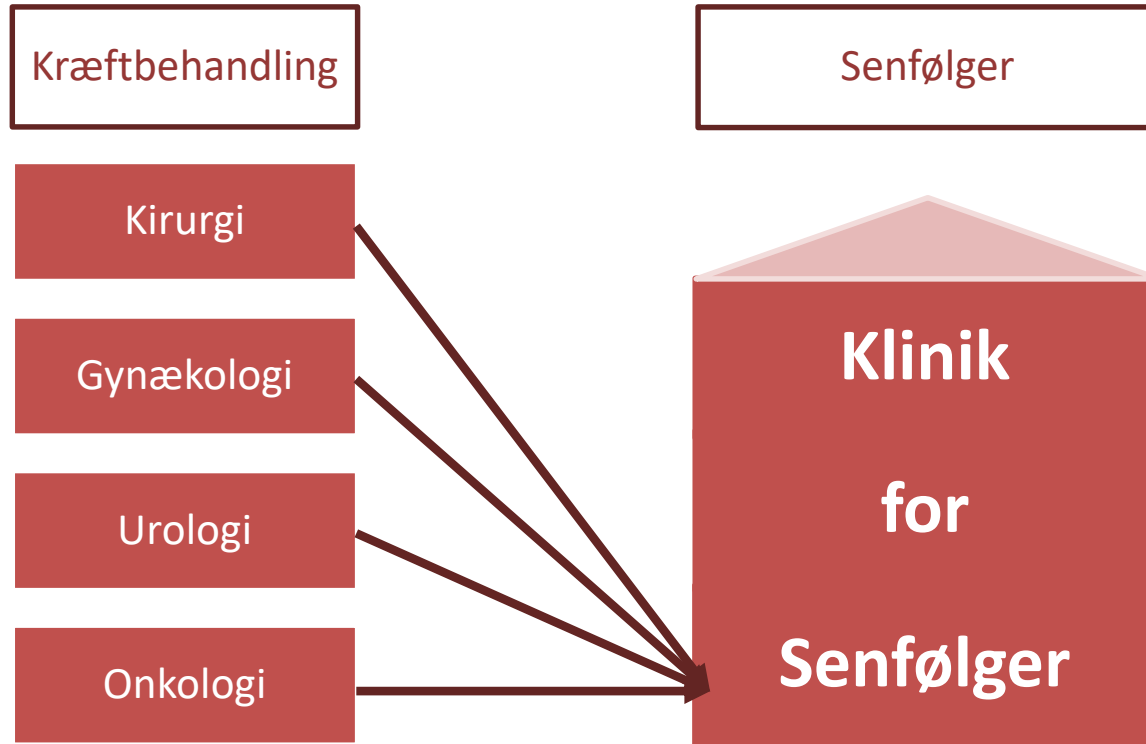
**ASSISTANCE**

# Senfølger rammer flere organer samtidig





# Tværfaglig Klinik for Senfølger efter kræft



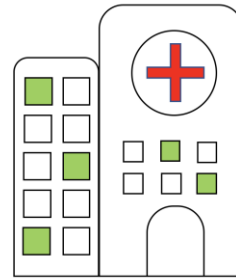
# Evaluering af effekten af behandling

Alle cancere i  
bækkenorganer

Fundet ved:

- screening (tarmkræft) ca. 50%
- ambulante kontrolbesøg i andre afd
- egen læge

Klinik for Senfølger



- Mave- og Tarmkirurgi
- Lever- Mave- og Tarmsygdomme
- Urinvejskirurgisk afd.
- Gynækologisk afd.
- Smerteklinik
- Sexologisk center





ORIGINAL ARTICLE

# Systematic screening for late sequelae after colorectal cancer—a feasibility study

Therese Juul<sup>1,2,3</sup> | Annette Boesen Bräuner<sup>2,4</sup> | Asbjørn Mohr Drewes<sup>3,5,6</sup> |  
Katrine Jøssing Emmertsen<sup>3,7</sup> | Klaus Krogh<sup>3,8</sup> | Søren Laurberg<sup>2,3</sup> |  
Michael Bødker Lauritzen<sup>9,10</sup> | Ole Thorlacius-Ussing<sup>6,9</sup> | Peter Christensen<sup>1,2,3</sup> |  
Danish Cancer Society Centre for Research on Survivorship and Late Adverse Effects after  
Cancer in the Pelvic Organs Study Group

<sup>1</sup>Department of Surgery, Aarhus University Hospital, Aarhus, Denmark  
<sup>2</sup>Department of Clinical Medicine, Aarhus University, Aarhus, Denmark  
<sup>3</sup>Danish Cancer Society Centre for Research on Survivorship and Late Adverse Effects After Cancer in the Pelvic Organs, Aalborg, Denmark  
<sup>4</sup>Department of Surgery, Regional Hospital Viborg, Viborg, Denmark  
<sup>5</sup>Mech-Sense, Department of Gastroenterology and Hepatology, Aalborg University Hospital, Aalborg, Denmark  
<sup>6</sup>Department of Clinical Medicine, Aalborg University, Aalborg, Denmark  
<sup>7</sup>Department of Surgery, Regional Hospital Randers, Randers, Denmark  
<sup>8</sup>Department of Hepatology and Gastroenterology, Aarhus University Hospital, Aarhus, Denmark  
<sup>9</sup>Department of Hepatology and Gastroenterology, Aarhus University Hospital, Aalborg, Denmark  
<sup>10</sup>Department of Gastrointestinal Surgery, Aalborg University Hospital, Aalborg, Denmark  
<sup>11</sup>Department of Surgery, North Denmark Regional Hospital, Hjørring, Denmark

### Correspondence

Therese Juul, Department of Surgery,  
Aarhus University Hospital, Aarhus,  
Denmark.  
Email: therjuul@rm.dk

### Funding information

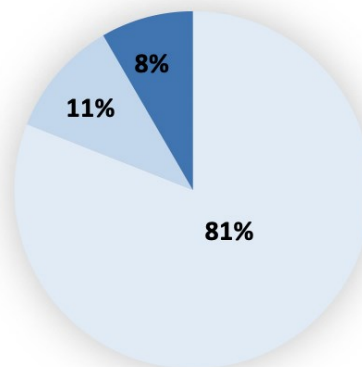
The study was funded by the Danish  
Cancer Society, grant R192-A11536.  
Therese Juul was partly supported by  
the Novo Nordisk Foundation grant  
NNF19OC0022988. The funders had no  
role in study design, data collection and  
analysis, decision to publish or preparation  
of the manuscript.

### Abstract

**Aim:** The aim of this study was to test the feasibility of a new method for systematic screening for late sequelae (LS) following colorectal cancer treatment.  
**Method:** Patients with colorectal cancer from five Danish hospitals were invited to complete a survey about LS at 3, 12, 24 and 36 months after surgery as part of their follow-up. The survey consisted primarily of validated tools, supplemented by a few ad hoc items, measuring bowel, urinary and sexual dysfunction, pain and quality of life and an additional question regarding request for contact. Patients completed surveys electronically or on paper.  
**Results:** Of the 1721 invited patients, 1386 (80.5%) were included (1085 with colon cancer and 301 with rectal cancer) of whom 72.5% responded electronically. Patients responding electronically were 7.6 years younger than those responding on paper ( $P < 0.001$ ). Since some patients answered more than once, the dataset consisted of 2361 surveys. Patients with colon cancer requested phone contact in 19.0% of the surveys, and 8.4% were referred to treatment for LS, primarily bowel dysfunction. Among patients with rectal cancer, 30.8% requested phone contact and 16.2% were referred for treatment of LS, mainly due to bowel and sexual dysfunction.  
**Conclusion:** This is the first paper investigating a new method of systematic screening for LS following colorectal cancer using electronic patient-reported outcome measures. The

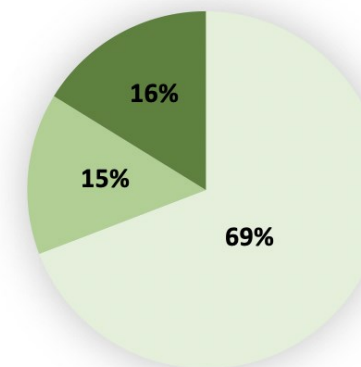
# 2904 patienter svarprocent 80%

## COLON CANCER



■ No action ■ Phone contact only ■ Phone + referral

## RECTAL CANCER

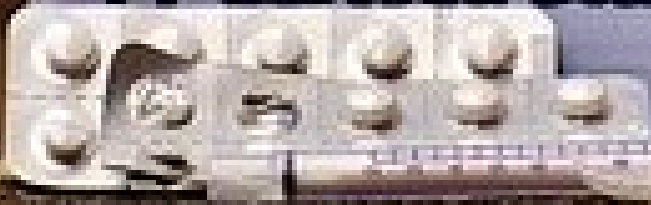


■ No action ■ Phone contact only ■ Phone + referral

# FIRST AID CASE



*Medicines & Bandages*



# Sygeplejersker i front

Jeg kan hjælpe!





# Udredning og behandling af diarré efter kræft



Hvad kan der gøres?

Medicinliste

Gluten allergi? Mælkesukker- intolerance?  
Kronisk tarmbetændelse? m.fl.

Overvækst af bakterier i tyndtarmen?

Manglende optagelse af galdesalte

Peristaltikforstyrrelser











*'Jeg kan gå tur med hunden uden ....'*

*'Jeg inviterede til stor fødselsdagsfest uden at bekymre mig''*

*'Jeg har ikke længere en taske med skiftetøj og bleer med mig'*

*'Nu kan jeg igen deltage i mandeklubben..'*

# KLINIK FOR SENFØLGER TIL KRÆFT I BÆKKENORGANERNE

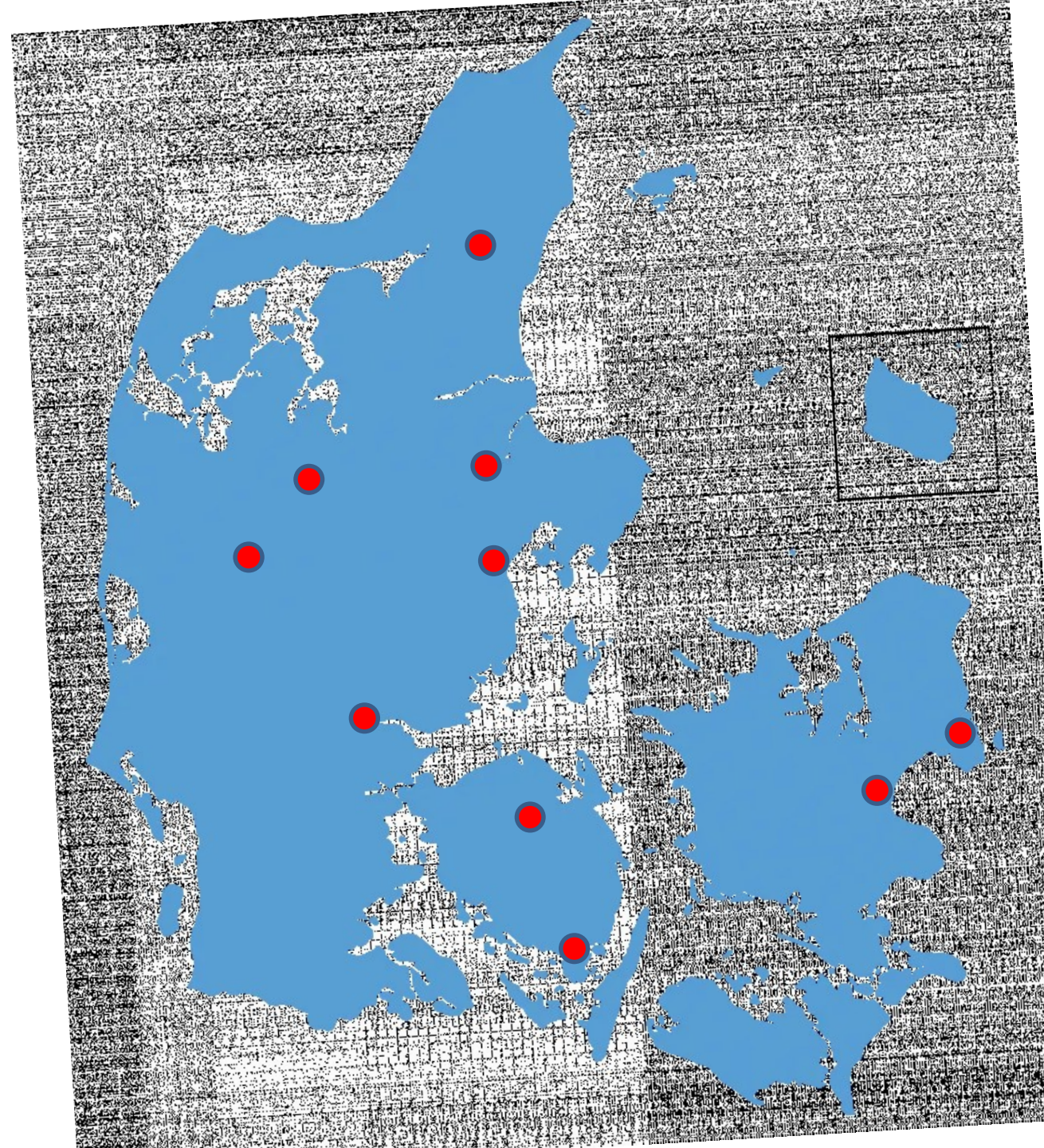
Oprettet på Aarhus Universitetshospital og  
Aalborg Universitetshospital med driftsstøtte  
fra Region Midtjylland og Region Nordjylland

## NATIONAL UDBREDELSE I GANG

Region Hovedstaden, Herlev

Region Sjælland, Køge

Region Syd, Svendborg/Odense/Vejle



# Nationale kliniske retningslinjer: kolorektal cancer og anal cancer

Søg på hjemmesiden...

DANSKE MULTIDISCIPLINÆRE CANCER GRUPPER DMCG.dk

Om DMCG.dk Kliniske retningslinjer DMCG udvalg Årsberetninger og udgivelser Danske Kræftforskningsdage Kontakt

Du er her: Kliniske retningslinjer > Kliniske retningslinjer opdelt på DMCG > Kolorektalcancer > Management of treatment-related sequelae following colorectal cancer

Udskriv

## Kliniske retningslinjer

Kliniske retningslinjer opdelt på DMCG

Kolorektalcancer

### Management of treatment-related sequelae following colorectal cancer

### Management of treatment-related sequelae following colorectal cancer

#### Anbefalinger

- + Fokus på senfølger i opfølgingsprogrammerne
- + Psykosociale senfølger
- + Senfølger i mave-tarm-kanalen efter koloncancer
- + Senfølger i mave-tarm-kanalen efter rektumcancer
- + Stomier
- + Senfølger i urinvejene
- + Seksuelle senfølger

ACTA ONCOLOGICA  
2021, Vol. 60, No. 12, 1688–1701  
https://doi.org/10.1080/0284186X.2021.1983208

Taylor & Francis  
Taylor & Francis Group

Check for updates

Received: 29 April 2022 | Revised: 15 July 2022 | Accepted: 21 July 2022  
DOI: 10.1111/codi.16299

REVIEW

## Management of late adverse effects after chemoradiation for anal cancer

Susanne Haas<sup>a</sup>, Anette H. Mikkelsen<sup>b</sup>, Camilla Kronborg<sup>c</sup>, Birthe T. Oggesen<sup>d</sup>, Pia Moeller Faaborg<sup>e</sup>, Eva Serup-Hansen<sup>f</sup>, Karen-Lise G. Spindler<sup>g</sup> and Peter Christensen<sup>h</sup>

<sup>a</sup>Danish Cancer Society, National Research Centre for Survivorship and Late Adverse Effects following Pelvic Organ Cancer, Aarhus University Hospital, Aarhus, Denmark; <sup>b</sup>Sexological Center, Aalborg University Hospital, Aalborg, Denmark; <sup>c</sup>Department of Surgery, Herlev Hospital, Herlev, Denmark; <sup>d</sup>Department of Surgery, Vejle Hospital, Vejle, Denmark; <sup>e</sup>Department of Oncology, Herlev Hospital, Herlev, Denmark; <sup>f</sup>Department of Oncology, Aarhus University Hospital, Aarhus, Denmark

### ABSTRACT

**Background and purpose:** Significant improvements in the treatment of anal cancer have produced a growing population of anal cancer survivors. These patients often experience late adverse effects related to their treatment. Research has revealed substantial unmet needs because of long-term symptoms and functional impairments after treatment that may negatively affect health-related quality of life. The purpose of the present guidelines is to review the scientific evidence for the management of late adverse effects after (chemo)radiotherapy (CRT) for anal cancer and to extrapolate knowledge from other pelvic malignancies treated with pelvic CRT so that they may guide the clinical management of late adverse effects.

**Materials and methods:** Relevant studies were systematically searched in 16 databases, focusing on bowel dysfunction, psychosocial aspects, pain, and sexual and urinary dysfunction. The guidelines were developed by a panel of experts using the Oxford Centre for Evidence-based Medicine, grades of evidence, and grades of recommendations.

**Scientific evidence:** Late adverse effects after CRT for anal cancer are associated with a low overall quality of life among survivors. The most pronounced late adverse effects are bowel dysfunction (present in up to 78%), urinary dysfunction (present in up to 45%), and sexual dysfunction (present in up to 90% of men and up to 100% of women). Only indirect data on adequate treatment options of these late adverse effects for anal cancer are available.

**Conclusions:** Quality of life and late adverse effects should be monitored systematically following treatment for anal cancer to identify patients who require further specialist evaluation or support. Increased awareness of the extent of the problem may serve to stimulate and facilitate multidisciplinary collaboration, which is often required.

### Background and purpose

Squamous cell carcinoma of the anal canal (anal cancer) is relatively rare, but the incidence has been increasing over the past two decades, whereas age at time of diagnosis has followed a decreasing trend [1,2]. The increasing incidence of anal cancer in men and women may be accounted for by an increase in the prevalence of exposures, such as cigarette smoking, anal intercourse, human papilloma virus (HPV) infection, and growth in the number of lifetime sexual partners [1]. In Denmark, the incidence rate of HPV-associated anal cancers has increased significantly, whereas that of non-HPV-associated histological types has levelled out or even declined in the 30-year period during which observation has been in place indicating that vaccines against HPV may play an important role in the prevention of anal cancer and its precursor lesions [3].

The standard of care for anal cancer is chemoradiotherapy (CRT). The purpose of CRT is to preserve sphincter function and to maintain the best possible quality of life (QoL). However, CRT have never been compared directly, but in addition to preserving sphincter function, CRT has shown to yield better local control rates [4]. In case of cancer recurrence, CRT is offered. CRT for anal cancer involves the use of 5-FU, mitomycin, and fluorouracil delivered to the anal tumour and surrounding areas. Organs that are often affected by CRT are the small and large bowel, the bladder, the genitalia, male genitalia, the skin, and the pelvic structures.

Significant improvements in anal cancer treatment have produced a growing population of anal cancer survivors. However, surviving anal cancer often co-

### Management of treatment-related sequelae following colorectal cancer

Susanne Haas<sup>1,2</sup> | Anette Højer Mikkelsen<sup>3</sup> | Camilla Jensenius Skovhus Kronborg<sup>4</sup> | Birthe T. Oggesen<sup>5</sup> | Pia F. Møller<sup>6</sup> | Janne Fassov<sup>1,7</sup> | Nina Abild Frederiksen<sup>8</sup> | Marianne Krogsgaard<sup>8</sup> | Charlotte Graugaard-Jensen<sup>9</sup> | Lise Ventzel<sup>10</sup> | Peter Christensen<sup>1,11</sup> | Katrine Jøssing Emmertsen<sup>1,2</sup>

<sup>1</sup>Department of Surgery, Danish Cancer Society National Research Center for Survivorship and Late Adverse Effects Following Pelvic Organ Cancer, Aarhus University Hospital, Aarhus, Denmark  
<sup>2</sup>Department of Surgery, Randers Regional Hospital, Randers, Denmark  
<sup>3</sup>Sexological Center, Aalborg University Hospital, Aalborg, Denmark  
<sup>4</sup>Danish Centre for Particle Therapy, Aarhus University Hospital, Aarhus, Denmark  
<sup>5</sup>Department of Surgery, Herlev Hospital, Herlev, Denmark  
<sup>6</sup>Department of Surgery, Vejle Hospital, Vejle, Denmark  
<sup>7</sup>Department of Gastroenterology and Hepatology, Aarhus University Hospital, Aarhus, Denmark  
<sup>8</sup>Department of Surgery, Zealand University Hospital, Køge, Denmark  
<sup>9</sup>Department of Urology, Aarhus University Hospital, Aarhus, Denmark  
<sup>10</sup>Department of Oncology, University Hospital of Southern Denmark, Vejle, Denmark  
<sup>11</sup>Department of Surgery, Aarhus University Hospital, Aarhus, Denmark

Correspondence: Susanne Haas, Department of Surgery, Randers Regional Hospital, Skovlyvej 15, Randers 8930, Denmark. Email: susahaas@rm.dk

Funding Information: Kræftens Bekæmpelse; the Danish Cancer Society

### Abstract

**Aim:** Colorectal cancer survivors are one of the most rapidly growing groups of patients living with and beyond cancer. In a national multidisciplinary setting, we have examined the extent of late treatment-related sequelae in colorectal cancer survivors and present the scientific evidence for management of these conditions in this patient category with the aim of facilitating identification and treatment.

**Method:** A systematic search for existing guidelines and relevant studies was performed across 16 and 4 databases, respectively, from inception to 2021. This yielded 13 guidelines and 886 abstracts, of which 188 were included in the finalized guideline (231 in-lines and 886 abstracts, of which 188 were included in the finalized guideline and 53 additional articles were included).

**Results:** Symptoms have been divided into overall categories including psychosocial, bowel-related, urinary, sexual (male and female), pain/neuropathy and fatigue symptoms or complaints that are examined individually. Merging and grading of data resulted in 22 recommendations and 42 management strategies across categories. Recommendations are of a more general character, whereas management strategies provide more practical advice suited for initiation on site before referral to specialized units.

**Conclusion:** Treatment-related sequelae in colorectal cancer survivors are common and attention needs to be focused on identifying patients with unmet treatment needs and the development of evidence-based treatment algorithms.

### KEYWORDS

colorectal cancer, colon cancer, long-term sequelae, rectal cancer, sequelae, treatment-related sequelae

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial-NoDeriv](#) License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.  
© 2022 The Authors. Colorectal Disease published by John Wiley & Sons Ltd on behalf of Association of Coloproctology of Great Britain and Ireland.  
Colorectal Disease, 2023; 25: 458–488.

458 | wileyonlinelibrary.com/journal/codi

# Pakkeforløb for kræft i tyk- og endetarm

For fagfolk

## 4.2. Specifikke senfølger til kræft i tyk- og endetarm

Op imod 40% af patienter behandlet for kræft i tyk- og endetarm får væsentlige senfølger til deres kræftbehandling. DCCG har udarbejdet kliniske retningslinjer<sup>(5)</sup> for håndtering af senfølger til kræft i tyk og endetarm, med anbefalinger til opsporing, udredning og behandling af senfølgerne. For en mere uddybende beskrivelse se disse.

Støtteforanstaltninger kan både være at understøtte de fysiske og psykosociale følger af kræft i tyk- og endetarm, og bør udgøre en del af opfølgningen, afhængig af behovet (se specifikke områder i afsnit 4.2.).

### Palliativ behandling ved kræft i tyk- og endetarm

For patienter i palliativ behandling omfatter forebyggelse og lindring af lidelse særligt generende symptomer som smerter, træthed, ernæringsproblematikker, angst og depres-

handling af senfølgerne. For en mere uddybende beskrivelse se disse.

Senfølger til kræft i tyk- og endetarm er sjældent isoleret til enkelte organer, men er ofte et resultat af flere abnorme funktioner, som kan give symptomer i form af tarmproblemer, smerter, vandladningsproblemer, seksuelle problemer og psykosociale problemer. Senfølger kan i vidtgående grad påvirke patientens sociale aktiviteter og livskvalitet. Iværksættelse af de rette interventioner kan dog medføre markante forbedringer.

Ved konstatering af senfølger, er det den afdeling, som på det givne tidspunkt har patienten i behandling eller i et opfølgingsforløb, som er ansvarlig for, at senfølgerne vurderes af de rette fagpersoner fra relevante specialer. I en del tilfælde konstateres senfølgerne i almen praksis, som derved er ansvarlige for at håndtere senfølgerne eller henvise til vurdering. Det kan være relevant med henvisning til en afklarende samtale i kommunen, og

# Forpligtende standarder! Kvalificeret behandling!



Alle kræftformer.  
Kliniske retningslinjer.

Specialiseret  
behandlingstilbud.  
Organspecifikke + generelle.

**Senfølger efter  
kræft**

Senfølgeklinikker  
i alle regioner

Kræftplan V





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

JOIN OUR TEAM  
800-669-0322  
shaffertrucking.com



OUR MOST  
VALUABLE  
RESOURCE SITS  
63 FEET AHEAD.

C240

# TAK FOR OPMÆRKSOMHEDEN



@AUHsurgery  
@PeterCh12345  
@Senfoelger

#SamarbejdeOmKræft

#DKD2023



AUH Surgery  
Surgical Research

