# A Multidimensional Assessment of Severe Bowel Symptoms: Risk Factors and Validation of the Dutch Memorial Sloan Kettering Cancer Center (MSKCC-BFI) (#28015)

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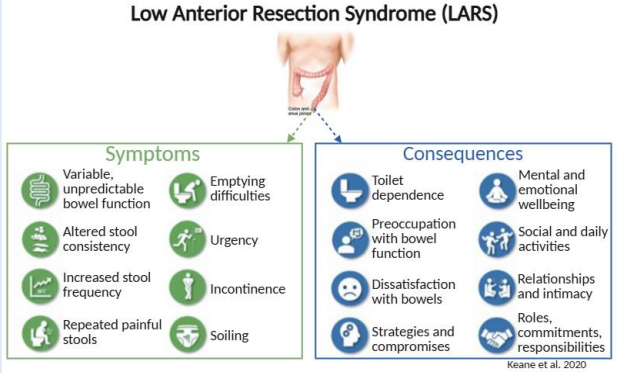
## BACKGROUND

The **LARS score** is widely used to screen for bowel dysfunction after rectal cancer. It **lacks sufficient granularity** for longitudinal follow-up. The **MSKCC-BFI** may overcome these limitations, yet **no validated Dutch version** is available.
A more **comprehensive assessment** may improve the identification of associated **risk factors**.




## OBJECTIVES

1. To evaluate the **reliability and validity** of the **Dutch** Memorial Sloan Kettering Cancer Center Bowel Function Instrument (**MSKCC-BFI**)

2. To identify **risk factors for LARS** using multiple questionnaires, including **LARS score**, **MSKCC-BFI** and Colorectal functional outcome (**COREFO**)

## METHODS

Patients after total or partial mesorectal excision (2017-2024)

University Hospitals Leuven

**Baseline:** LARS score, MSKCC-BFI, COREFO
**7 days later:** MSKCC-BFI

## RESULTS

### Baseline characteristics

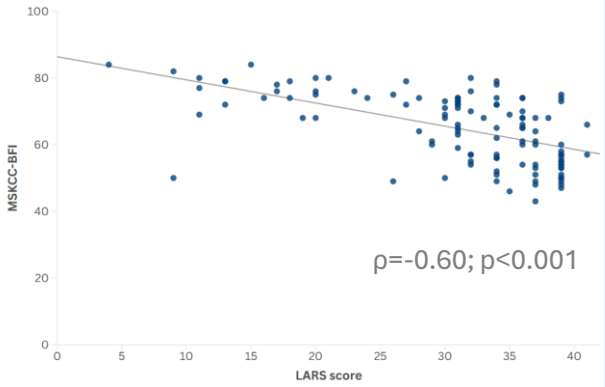
| | | N=115 |
|---|---|---|
| Age | | |
| | <50 years | 25 |
| | ≥50-70 years | 65 |
| | ≥70 years | 25 |
| Gender | | |
| | Female | 51 |
| | Male | 64 |
| Tumor height | | |
| | Proximal | 62 |
| | Distal | 53 |
| Radiotherapy | | |
| | No | 67 |
| | Yes | 48 |
| Time since surgery (months) | | |
| | Median (IQR) | 37 (19-56) |

## RESULTS

### Dutch MSKCC-BFI

**Test-retest reliability** ICC=0.89; p<0.001

**Convergent validity**




**Known-groups validity**

| | N | mean (SD) | p-value |
|---|---|---|---|
| Radiotherapy | | | <0.001 |
| No | 67 | 69 (9) | |
| Yes | 48 | 59 (9) | |
| Tumor height | | | 0.003 |
| Proximal | 62 | 68 (10) | |
| Distal | 53 | 62 (11) | |
| Temporary stoma | | | 0.005 |
| No | 39 | 69 (8) | |
| Yes | 76 | 63 (11) | |

*Mann-Whitney U test*
SD: standard deviation

## RESULTS

### Risk factors

| | LARS score | | MSKCC-BFI | | COREFO | |
|---|---|---|---|---|---|---|
| | Uni | Multi | Uni | Multi | Uni | Multi |
| | 0.006 | 0.034 | <0.001 | <0.001 | <0.001 | <0.001 |
| | 0.008 | 0.027 | <0.001 | | 0.001 | 0.049 |
| | | | 0.003 | | <0.001 | |
| | | | 0.003 | | 0.011 | |
| | | | 0.003 | | 0.013 | |
| | | | 0.003 | | 0.003 | |

***Linear regression:*** *Only significant p-values (<0.05) are presented in the table.*

*Radiotherapy* *Type of surgery* *Tumor height* *Type of anastomosis*
*Inferior mesenteric vein ligation* *Temporary stoma after surgery*

## CONCLUSION

1. The **Dutch MSKCC-BFI** showed strong reliability and validity.

2. **Preoperative radiotherapy** was the most important independent predictor of LARS.

## CONTACT

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