Validity of the Self-administered Comorbidity Questionnaire in Patients with Inflammatory Bowel Disease

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BACKGROUND

- There is a need to adjust for case-mix differences when comparing IBD providers

- Self-administered comorbidity questionnaire (SCQ) selected by ICHOM to correct for comorbidities

- **Aim: to validate the SCQ in IBD patients**

METHODS

Criterion validity - agreement with:
- Electronic health records

Responsiveness - correlation of change in SCQ with changes in:
- EQ-5D-5L
- IBD-related healthcare costs
- IBD-related productivity costs
- IBD disease activity

Construct Validity - correlation with:
- Electronic health records
- Charlson Comorbidity Index
- EQ-5D-5L
- IBD-related healthcare costs
- IBD-related productivity costs
- Work disability
- IBD disease activity

CONCLUSIONS

✔ **Validity**

The **SCQ** is **valid** for measuring **comorbidity** in **IBD patients**

? **Usability**

To correct for **case-mix**, the SCQ needs **adjustment**

RESULTS

613 patients included, patients do not misinterpret disease activity as comorbidities

Fair criterion validity (Table 1)

Disease	Kappa	95% CI
Lung	0.65	[0.55; 0.75]
Diabetes mellitus	0.89	[0.82; 0.97]
Stomach	0.17	[−0.04; 0.38]
Kidney	0.35	[0.10; 0.59]
Heart	0.62	[0.50; 0.74]
Liver	0.48	[0.27; 0.70]
Blood	0.03	[−0.06; 0.11]
Cancer	0.60	[0.45; 0.76]
Depression	0.23	[0.09; 0.36]
Backpain	0.18	[0.11; 0.25]
Hypertension	0.73	[0.66; 0.81]
Artritis	0.32	[0.24; 0.40]

Table 1. Cohen's kappa between patient-reported and electronic health record presence of a disease.

Fair construct validity (Table 2)

Outcome	Correlation	95% CI
CCI	0.38	[0.31; 0.45]
Clinican-reported SCQ	0.60	[0.54; 0.65]
EQ-5D-5L (utility)	−0.38	[−0.45; −0.30]
EQ-5D-5L (VAS)	−0.30	[−0.37; −0.22]
IBD-Control-8 score	−0.18	[−0.26; −0.09]
Manitoba IBD Index	−0.14	[−0.23; −0.06]
Healthcare costs	0.02	[−0.06; 0.11]
Productivity costs	0.15	[0.05; 0.24]
Prevalence of disability	0.23	[0.14; 0.31]

Table 2. Spearman correlation coefficients between change in SCQ and change in selected outcomes
CCI: Charlson Comorbidity Index, VAS: visual analog scale

Low responsiveness (Table 3)

Outcome	Correlation	95% CI
EQ-5D-5L (utility)	−0.15	[−0.26; −0.05]
EQ-5D-5L (VAS)	−0.10	[−0.20; 0.01]
IBD-Control-8 score	−0.01	[−0.12; 0.11]
Manitoba IBD Index	−0.02	[−0.12; 0.09]
Healthcare costs	0.05	[−0.05; 0.15]
Productivity costs	0.02	[−0.11; 0.14]

Table 3. Spearman correlation coefficients between change in SCQ and change in selected outcomes
SCQ: self-administered comorbidity questionnaire, VAS: visual analog scale

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DISCUSSION

- SCQ is more accurate in registering comorbidities than electronic health records
- Patients can distinguish between comorbidities and IBD symptoms
- Outcomes are not responsive to change in comorbidities
- Face & Content validity are lacking

- SCQ corrects for outcomes
  - Anaemia
  - Colorectal cancer
- SCQ misses important comorbidities
  - Venous thrombosis
  - Parkinson's disease
  - Osteoporosis
  - Multiple sclerosis