Title manuscript: The estimation of a preference-based single index for the IBS-QoL by mapping to the EQ-5D-5L in patients with irritable bowel syndrome.

Journal: Quality of Life Research

Authors: Rosel Sturkenboom MD\textsuperscript{1,2}, Daniel Keszthelyi MD PhD\textsuperscript{1}, Lloyd Brandts PhD\textsuperscript{2}, Zsa Zsa R M Weerts MD\textsuperscript{1}, Johanna T W Snijkers MD\textsuperscript{1}, Ad A M Masclee Prof MD PhD\textsuperscript{1}, Brigitte A B Essers PhD\textsuperscript{2}

\textsuperscript{1} Division of Gastroenterology-Hepatology, Department of Internal Medicine, NUTRIM School for Nutrition and Translational Research in Metabolism, Maastricht University Medical Center, Maastricht, The Netherlands.

\textsuperscript{2} Department of Clinical Epidemiology and Medical Technology Assessment, CAPHRI Care and Public Health Research Institute, Maastricht University Medical Center, Maastricht, The Netherlands.

E-mail address of corresponding author: rosel.sturkenboom@mumc.nl
## Supplementary Table 1

Mapping equations from IBS-QoL score to EQ-5D-5L to IBS using OLS regression

| Type of analysis | Model 1 Total IBS-QoL score | Model 2 Total IBS-QoL score + IBS-SSS + age | Model 3 Two domains IBS-QoL: Dysphoria score + Body image score | Model 4 Total IBS-QoL score + Squared IBS-SSS score | Model 5 Dysphoria score + Body image score + squared IBS-SSS + age |
|------------------|-----------------------------|---------------------------------------------|---------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------|
|                  | Coef. | SE     | Coef. | SE     | Coef. | SE     | Coef. | SE     | Coef. | SE     | Coef. | SE     |
| Constant         | 0.22  | 0.061 ** | 0.443 | 0.096 ** | 0.29  | 0.054 ** | 0.38  | 0.077 ** | 0.44  | 0.076 * |     |       |
| IBS-QoL total score | 0.00  | 0.001 ** | 0.006 | 0.001** | 0.00  | 0.001** |       |         |       |         |     |       |
| IBS-SSS score    | -     | 0.00049 | 0.000 | 0.00018 ** |       |         |       |         |       |         |     |       |
| Age              | -     | 0.000 8 | 0.0009 |       | -     | 0.0005 | 0.0001 |       |       |         |     |       |
| IBS-QoL domain Dysphoria score | 0.00  | 0.001 ** |       |         | 0.00  | 0.003 ** |       |         |       |         |     |       |
| IBS-QoL domain Body Image score | 0.00  | 0.001 ** |       |         | 0.00  | 0.008 * |       |         |       |         |     |       |
| Squared IBS-SSS score |       |         | -1.03E-6 | 3.24E-7** | 9.36  | 3.32E-07** |       |         |       |         |     |       |

Coeff. = Coefficients, determined by regression analysis in STATA. SE: Standardized Error. Significance * p<0.05, ** p<0.01. IBS-QoL total score: Score between 0-100. IBS-SSS score: score between 0 and 500 defining the severity of IBS.