

Figure S1 Step-by step demonstration of how patients can utilize the latest version of the UDD App starting from downloading the application from the digital store (left), and then going through sign-up and registration, and ending with having a report card that can be exported to themselves or providers (right). UDD App, Upper Digestive Disease Application.

Table S1 The cut scores derived from modified Angoff methods and expert consensus for the 5-domains (Dysphagia, Reflux, Dumping Hypoglycemia, Dumping Gastrointestinal, and Pain)

Domain	Good/Moderate Cut	Moderate/Poor Cut
Dysphagia	19.3	57.6
Reflux	17.0	50.1
Dumping-HG	7.2	37.9
Dumping-GI	11.2	40.6
Pain	n/a	n/a

Table S2 The cut scores derived from modified Angoff methods and expert consensus for the 10-domains (Dysphagia, Heartburn, Regurgitation, Dumping Hypoglycemia, Dumping Gastrointestinal, Pain, Aspiration, Dyspnea, Weight Loss, and Nausea)

Domain	Good/Moderate Cut	Moderate/Poor Cut
Dysphagia	21.2	47.5
Heartburn	35.0	52.8
Regurgitation	27.7	57.8
Dumping-General	29.2	54.7
Dumping-GI	33.0	61.1
Pain	30.7	71.3
Aspiration	29.2	50
Dyspnea	27.5	54.2
Weight Loss	n/a	n/a
Nausea	28.2	52.0

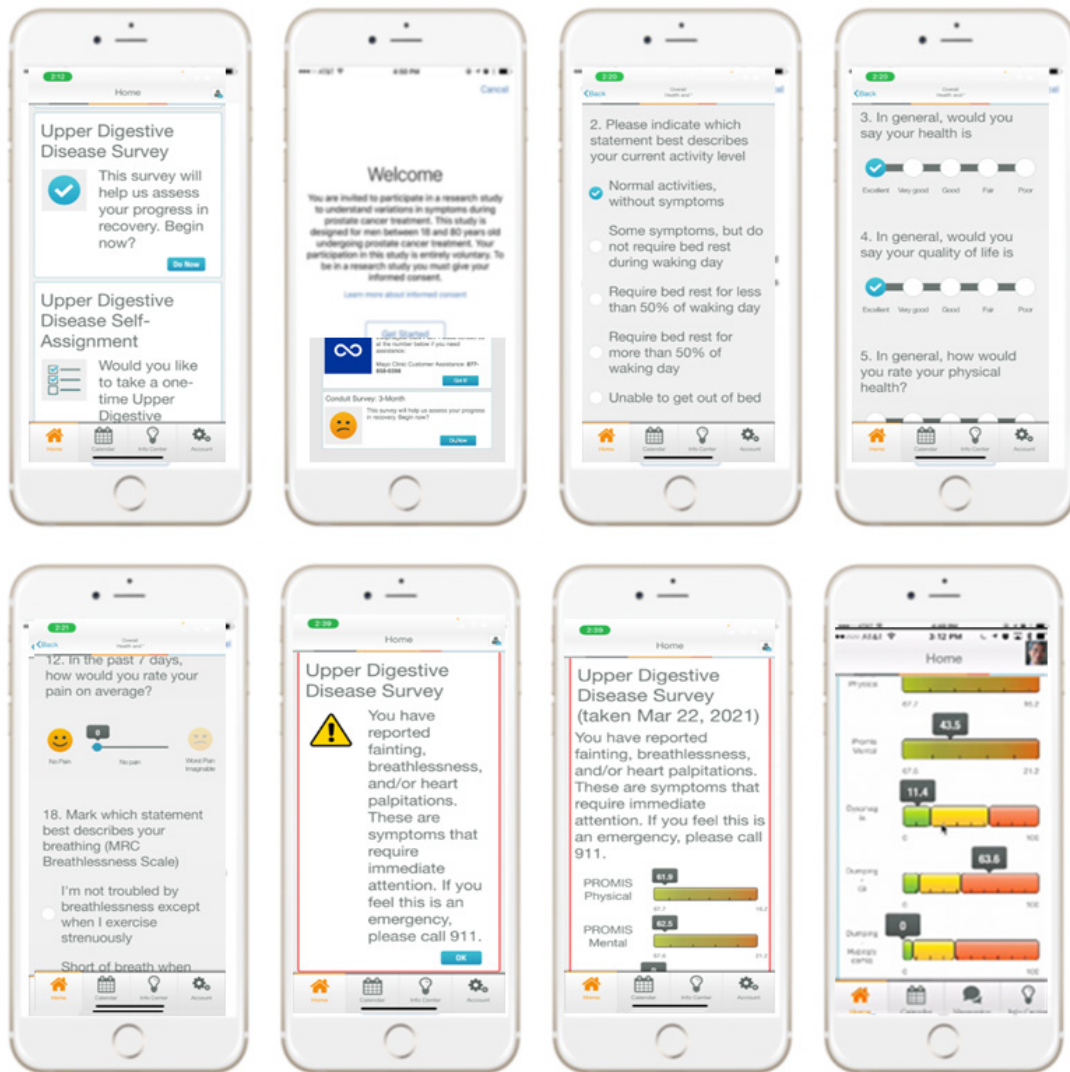


Figure S2 UDD App screenshots. Permission to reuse was obtained from Elsevier. UDD App, Upper Digestive Disease Application.

Mayo Clinic Patient Education Material

- 8th grade reading level
- Customized for patient disease
- Multi-disciplinary expert review
- Enterprise-wide review

Educational Content Developed in the Following Areas

- | | | | |
|-----------------------|--------------|----------------------|-----------------|
| - Aspiration | - Dumping-GI | - Regurgitation | - Managing Pain |
| - Reflux | - Dumping-HG | - Decreased QOL | - Depression |
| - Lactose Intolerance | - Dysphagia | - Decreased Activity | - Nutrition |
| - Weight Loss | - Dyspnea | - Exercise | - Breathing |

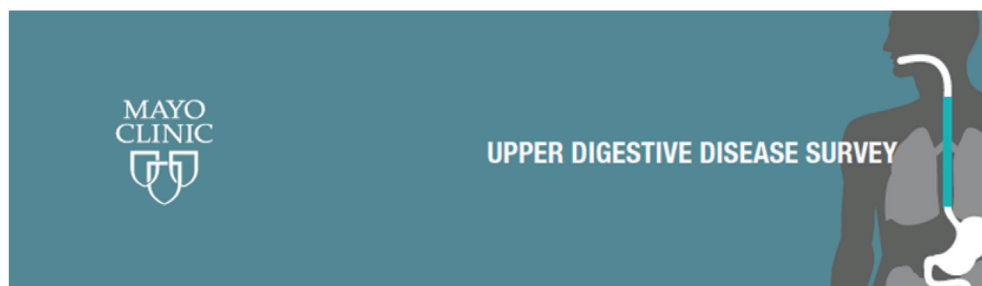


Figure S3 Patient education documents tailored for symptoms with recognizable design intended to create familiarity and comprehension.

Sample Report Card from UDD App: Including Instructions for patients

“This is a sample report card you will receive after completing the questionnaire”

Green indicates:

This means you are doing as expected and are like others who have had similar surgery and outcomes. You may have some symptoms, but are overall doing well.

Yellow indicates:

This means you are not experiencing a severe complication, but you might want to adjust your behavior, diet, or activity. We recommend you seek information to improve in the areas where you have a yellow score.

Red indicates:

This can indicate serious complications that require medical attention. A note will be sent to your Mayo Clinic surgical team.

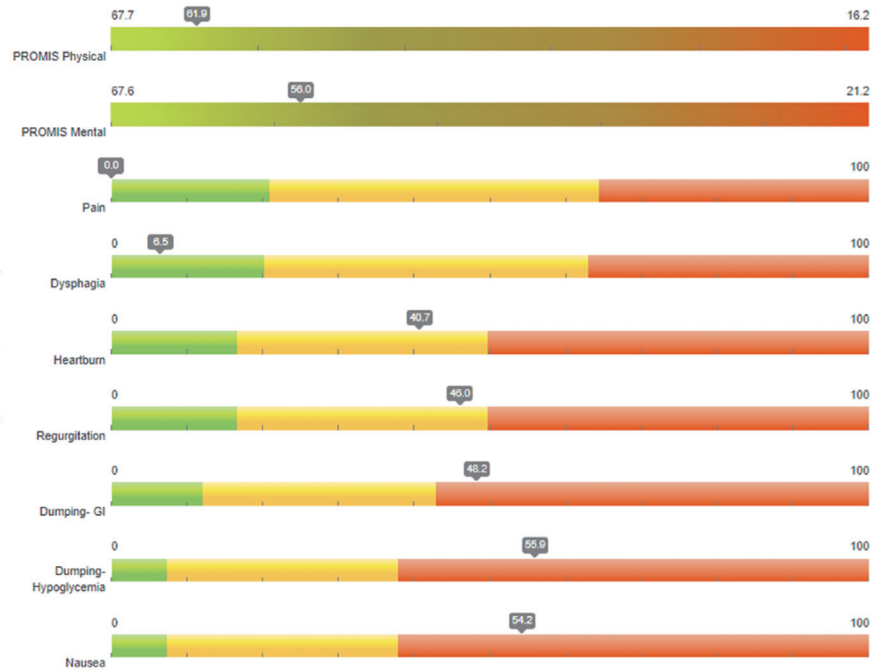


Figure S4 Instructions given to patients for interpreting color-coded scores. UDD App, Upper Digestive Disease Application.

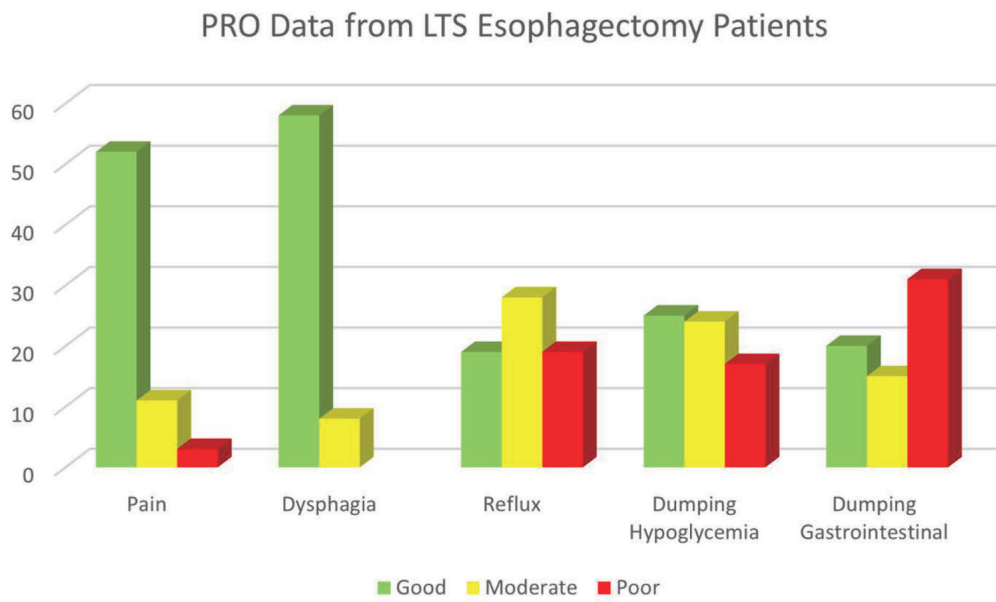


Figure S5 Long-Term Survivors (>10 years from esophagectomy) with Domain Scores presented by Color.