

**Supplementary file 1: Indicator usability score assessment**

The following questions addressing six dimensions will be assessed:

Experience

1. How many pancreatic resections have you done so far in your career as a responsible surgeon?  
(<25/25-75/>75)
2. In how many procedures/surgeries have you used the SmartPAN device?  
(0/1/2/>2)

Ease of use

3. SmartPAN was easy to remove from its package.  
(Strongly disagree/Disagree/Neither agree nor disagree/Agree/Strongly agree)
4. SmartPAN was easy to use.  
(Strongly disagree/Disagree/Neither agree nor disagree/Agree/Strongly agree)  
If disagree/strongly disagree, please specify:
5. It was easy to apply SmartPAN in a homogenous layer.  
(Strongly disagree/Disagree/Neither agree nor disagree/Agree/Strongly agree)  
If disagree/strongly disagree, please specify:
6. A complete removal of the indicator from the abdominal cavity was achieved.  
(Strongly disagree/Disagree/Neither agree nor disagree/Agree/Strongly agree)  
If disagree/strongly disagree, please specify:

Usefulness

7. Was there a color change?  
(yes/no)  
If a color change (from orange to blue) occurred:
  - a) How fast did the color change occur?  
(<30 sec/30s-3min/>3min)
  - b) How many areas of color change appeared?  
(1/2/≥3)
  - c) How big was the overall diameter which presented a color change?  
(<2mm/2-9mm/>9mm)
  - d) The color change was precise (not blurry).  
(Strongly disagree/Disagree/Neither agree nor disagree/Agree/Strongly agree)
  - e) Durability of color change was appropriate for surgical use (over minutes).  
(Strongly disagree/Disagree/Neither agree nor disagree/Agree/Strongly agree)
  - f) How many extra stitches did you apply after color change?  
(0/1/>2)

g) Did you re-apply SmartPAN after targeted closure?

(Yes/No)

- If yes, did it still indicate a leakage?

(Yes/No)

- Did you do a second round of targeted closure?

(Yes/No)

- If yes, how many stiches?

8. SmartPAN is useful for my work.

(Strongly disagree/Disagree/Neither agree nor disagree/Agree/Strongly agree)

#### Ease of learning

9. I learned how to use SmartPAN quickly and easily.

(Strongly disagree/Disagree/Neither agree nor disagree/Agree/Strongly agree).

#### Intention to use

10. I would like to use SmartPAN frequently.

(Strongly disagree/Disagree/Neither agree nor disagree/Agree/Strongly agree)

#### Safety

11. Were there any intraoperative adverse events associated with the use of the product?

(Yes/No)

If an intraoperative adverse event occurred, name event: