1   **SUPPLEMENTARY MATERIAL 1: PATIENT GROUP DISCUSSIONS**

2   In patient group discussions (one group for each condition), eligible indicators were

3   first selected from the full publicly reported set (reporting year 2016) and then the most

4   relevant indicators were included as attributes in the DCE. Participants (breast cancer:

5   n=3; colon cancer: n=5) were sampled from the study population. We explained the

6   aim of the session to participants and emphasized that we were interested in their

7   perspective and thus all provided answers were considered correct.

8   We selected the attributes using a step-wise approach: (1) participants

9   assessed an indicator's suitability as choice information, (2) participants indicated

10 which indicators they considered to be most important, and (3) consensus was

11 achieved regarding the set of most important indicators. This set was then included as

12 attributes in the DCE. In the first step, participants assessed, first individually and then

13 plenary, each indicator's suitability as choice information. The full set consisted of 52

14 (breast cancer) and 21 indicators (colon cancer). Each indicator was assessed using

15 four criteria. (1) The indicator should have a relevant and clear relationship with quality

16 of care. It should immediately be clear why the indicator mattered in terms of quality

17 of care. For example, participants immediately understood the potential adverse

18 effects of an irradical tumour resection on a patient's health. (2) It should be obvious

19 which scores indicate high quality levels and which low quality levels (i.e. direction).

20 For example, participants understood that as the number of treated patients increases,

21 providers become more experienced with the treatment. This increases the likelihood

22 of a favourable outcome of the treatment thus yielding a higher quality of care. (3) The

23 indicator should be able to differentiate hospitals with high quality levels and those

24 with low quality levels. The indicator should have sufficient variance in scores (SD ≥

25 2.5 in case of percentages as units). We explained the concept of SD, and computed

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26   and presented these statistics to participants for assessment. (4) The indicator should

27   be relevant to a large part of the patient population. Based on corresponding

28   numerators, indicators were considered relevant in this respect when they were on

29   average, based on 25 or more patients per hospital. During the assessments,

30   participants were able to ask questions of moderators (WB and colleague).

31   In the second step, participants indicated the three most important indicators

32   from the set of suitable indicators. They then identified three other indicators. For

33   breast cancer, individual rankings revealed a clear preference for six indicators as

34   these rankings were concentrated at these indicators (shown in appendix table A). All

35   participants ranked the indicator *combination surgery* in their first ranking indicating a

36   high relative importance. The indicator *volume* was included in both rankings indicating

37   variation in relative importance across participants: some participants did not rank this

38   indicator in their first top-three list. The indicators *waiting time* were only included in

39   the second ranking indicating that participants considered this indicator to be

40   important, albeit less important relative to other indicators. For colon cancer, and

41   relative to breast cancer, individual rankings revealed more variation across indicators.

42   Participants had a clear preference for the indicators *tumour residual* and *failure to*

43   *rescue* as they ranked these indicators only in their first ranking. The indicators *waiting*

44   *time*, *examination of lymph nodes*, *adjuvant chemotherapy* and *30-days mortality* were

45   only included in the participant's second ranking indicating a lower relative importance.

46   In the final step, results of individual rankings were discussed plenary in order

47   to reach consensus on the most important set of indicators. For breast cancer, the

48   group agreed that the indicators included in the ranking were indeed the most

49   important indicators and thus six indicators (indicator 1 to 6 in table A) were included

50   as attributes in the DCE. For colon cancer, the group reached consensus that five

51   indicators were considered as most important (indicator 1 to 5 in table A) and were

52   therefore included as attributes in the DCE.

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54   **Table A**

55   *Results of individual rankings*

Quality indicator	Description	Ranked top 3 Round 1	Ranked top 3 Round 2
Breast cancer			
1) Volume	Total number of treated patients diagnosed with breast cancer.	X	X
2) Waiting time 1	Average waiting time between diagnosis and tumour resection.	-	X
3) Waiting time 2	Average waiting time between diagnosis and combination surgery.	-	X
4) Preserved breast contour	Share of patients with a tumour resection whose breast contour was preserved.	X	X
5) Combination surgery	Share of patients with a tumour resection who received a combination surgery.	X	-
6) Tumour residual	Share of tumour resections for which the tumour resection margin was shown to be irradical.	X	X
Colon cancer			
1) Volume	Total number of treated patients diagnosed with colon cancer.	X	X
2) Waiting time	Share of patients whose waiting time between diagnosis and tumour resection amounted less than five weeks.	-	X
3) Tumour residual	Share of tumour resections for which the tumour resection margin was shown to be radical.	X	-
4) Complications	Share of patients with a tumour resection for which surgical-related complications occurred (risk-adjusted).	X	X
5) Failure to rescue	Share of patients with a tumour resection for which failure to rescue occurred (risk-adjusted).	X	
6) Examination of lymph nodes	The share of patients with a resection due to a primary colon carcinoma (pT3-4N0M0) from whom ten or more lymph nodes were examined.	X	X
7) Adjuvant chemotherapy	The share of patients aged 75 years or younger with a resection due to a primary stage III colon carcinoma who received	-	X

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	adjuvant chemotherapy.		
8) 30-days mortality	The share of patients with a resection due to a primary rectum carcinoma who died within 30 days after the surgery (risk-adjusted).	-	X

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