Subject of SHTG Assessment
Robotic rectal cancer surgery

Name of patient organisation
Bowel Cancer UK

Health/medical conditions represented
Colon and rectal cancer

Contact name for this submission
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04/06/2018

Please complete the SHTG Declaration of Interest form

Please complete this form using the accompanying guide

Accessible Language: Where not specifically required for scientific/technical explanation, please use plain language, explaining acronyms and other non-lay terms.
1. **Tell us about the sources you used to gather information for this submission.** (See page 6 of guidance.)

The factual information on the condition is from our website. We are a member of the Information Standard so all medical content on our website is reviewed by relevant professionals. Some quotes have been included to demonstrate the emotional impact of the condition. These have come from case studies who have agreed to share their story.

The information about what people want from the technology was obtained by surveying people affected by bowel cancer. We developed a short survey that asked a combination of closed and free text questions. We promoted the survey on our patient online forum and on our social media accounts. We received 29 responses to the survey from people who had been affected by bowel cancer. These responses were analysed and the results used to help complete the submission.
2. What is the health condition and how does it affect the day-to-day lives of patients and their carers? (See page 7 of guidance.)
Rectal cancer affects the lower part of the large bowel, the rectum. There are over 1,000 cases of rectal cancer and cancer of the sigmoid junction (classified together at ISD) in Scotland each year. Surgery varies depending on the stage and size of the cancer, and other pre-existing co-morbidities.

Surgery is offered either as open or keyhole (laparoscopic) surgery. Laparoscopic surgery may not be an option for patients who are very overweight, if they have had surgery to the stomach area before or if they have advanced disease.

Both types of surgery have similar outcomes when performed by an experienced surgeon. The keyhole operation usually takes longer but patients may recover more quickly. Sometimes the surgeon will need to switch from keyhole to open surgery during the operation.

Depending on the outcome of the surgery, patients may need to have a stoma either temporarily or permanently. Many people manage very well with a stoma but it can impact on quality of life for others and some find it difficult to adjust to this change.

Mark (46) states “Toilet habits were extreme to say the least; going to the toilet in a colostomy bag was difficult. Mentally I struggled, and the occasions when it leaked left me feeling down - not depressed just low.”

Bethany (37) said “I struggle with the stoma – it has affected my relationship with my husband and two children, but also changed the way I feel about my own body. I don’t feel attractive with the stoma, although my husband assures me I am, and I did not want my children to know about it or see my body with it.”

After surgery some people may have side effects that carry on for more than six months (long-term effects) or that start months or years after they’ve finished treatment (late effects).

Fatigue is one of the most common effects. It can feel completely draining and can impact on all areas of a patient’s life.

Patients can be at risk of developing a hernia as their muscles are not as strong. Part of the bowel can push through the area around the scar. Some people get a hernia after having their stoma reversed. Hernias can cause people to have some pain in the area. If it is severe, they may need further surgery.

Patients may have a change in bowel habit and for some people this means that they need to rush to get to the toilet in time, have difficulty controlling their bowels or are woken during the night to empty their bowels. These problems can carry on long-term. It can be very upsetting and impact on mental health.

Glenn (62) describes life after surgery for rectal cancer, “Something happened to the nerves that control bladder function and it quickly became apparent when they removed the post op catheter that I was urine incontinent and had no control over this function either. Talk about double whammy. Many tests and procedures followed over the coming months but the upshot is that I will never pee normally again and have to self-catheterize up to seven times a day. I am nearly two years post operation and would say that I am only now starting to feel that I am living a near “normal” life again.”
Cancer treatment can affect sexual function, emotions and relationships leading to problems with intimacy and sex. Surgery for rectal cancer can cause long-term problems getting an erection and problems with ejaculation in some men. In women, surgery can cause tightening and shortening of the vagina. This can make sex difficult and painful.

Finally, surgery for rectal cancer can affect the nerves to the bladder. Patients might not be able to fully empty their bladder and may leak urine. This incontinence can impact on day to day activities, restricting what they are able to do and preventing them from living a full life.

3. What do patients and carers want from the health technology?
(See page 8 of guidance.)
We surveyed a small number (29) of patients and carers to obtain their views on robot-assisted surgery for colorectal cancers. We asked them to rank the factors they felt were most important to them when considering any potential benefits of this new surgical technique. By far the most important factor to them in considering this technology was that it should result in fewer treatment-related side effects (eg preservation of sexual, urinary and bowel function). These can have a significant and long term impact on people’s quality of life post-cancer therapy. Living a good quality life beyond treatment for cancer is a theme that has emerged in discussion with people affected by colorectal cancer many times, it is not enough to simply “survive cancer”, patients and their families want to know that they will be able to lead a full life not limited by having had cancer.

The second factor considered important by patients was a faster recovery time followed thirdly by smaller scars and finally a quicker return to work.

Patients also felt that improved precision was important and that the robot-assisted surgery should be able to access more difficult tumours where this may not be achievable using more conventional laparoscopic surgical techniques.

There were also some risks highlighted by the patients as important such as what would happen if there were some kind of mechanical failure, and how the theatre team would work to mitigate this. Were this to happen would it mean an automatic conversion to open surgery with the additional risks and recovery time that brings? Patients felt that this was an additional risk over those associated with laparoscopic surgery. A small number of respondents also brought up the issue of experience of surgical teams since this is a new technology and if offered would want to feel confident that their surgical team had been well trained and was as experienced in using robot-assisted technology as they were carrying out a standard laparoscopic or open surgery.

Overall patients are positive about the potential for the technology to be used for colorectal cancers. Having a greater range of treatment options available was seen as a good thing but patients did highlight the need for clinicians to be able to clearly articulate the benefits and risks of each option and in particular what robot-assisted surgery would bring to the table that laparoscopic surgery does not. The Charity also recognises the need to gather more clinical data in this regard so that we have solid evidence on which to base decisions such as this.

4. What difference did the health technology make to the lives of patients that have used it? (Leave blank if you didn’t make contact with anyone who had experience of the health technology.) (See page 9 of guidance.)
Only a single respondent to the survey had experienced robotic surgery. They stated that they would choose it again if offered, as there was a quick recovery time and little scarring.

5. Additional information you believe would be helpful for SHTG to consider. (See page 9 of guidance.)

From the small survey that we ran gathering the opinions of people affected by bowel cancer, it became clear that for some there was a lack of understanding about exactly how robotic surgery works. There was a misconception that the robot was somehow programmed to carry out the surgery or was doing so autonomously rather than the surgeon being assisted by the machine in a master-slave relationship. Should this technique be offered, thought needs to be given as to how to communicate about the technique as well as the potential benefits and risks. Consideration should also be given to ensure that surgeons and theatre teams are well supported and trained in the use of these robots.

The Charity welcomes the use of innovative new techniques that have the potential to benefit patients and particularly those that could impact long term quality of life. We do, however, note that there is a lack of data with regards to the benefits of robotic surgery over laparoscopic surgery and feel that should this technology be introduced, this offers an opportunity to gather further data for publishing and shape future guidance of the use of this technology in colorectal cancer.
6. Please summarise the key points of your submission in up to 5 statements. When we present your submission, we will present these first. (See page 9 of guidance.)

- The impact of having bowel cancer and the effects of its treatment can be lifelong so it is important to consider whether new treatment options might minimise such effects. Patients who responded to our survey stated that fewer treatment-related side effects was the most important potential benefit they would want from robot-assisted surgery.
- There is not a robust body of evidence demonstrating a clear benefit of robot-assisted surgery in colorectal cancers when compared with standard laparoscopic surgery.
- If introduced, there needs to be clear guidance for patients in terms of the potential risks and benefits of the surgery so that they can make informed choices about their treatment.
- There are some misconceptions about how robot-assisted surgery works and what the role of the surgeon vs the machine is in the theatre. This needs to be clearly communicated to patients which could allay some fears about mechanical failures during surgery.
- If this technology is implemented, it should be used to gather further data about robot-assisted surgery to build a body of evidence to demonstrate benefit to aid in future decision making.
7. Please give us details of anyone outside your group that had a role in preparing your submission. (See page 10 of guidance.)

300 words maximum

8. Do you consent for your submission to be posted on the SHTG website? (See page 10 of guidance.)

Yes [x]  No 

Thank you for completing this form. It will be given to SHTG members to inform their development of an Advice Statement for this technology.

Please return the form to:

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