

Supplementary Material 1. Questionnaire provided to colorectal surgeons.

Assessing risk of residual disease or lymph node metastases posed by colorectal malignant polyps

The management of malignant colorectal polyps poses a dilemma. It is often difficult to determine the right course of action on whether to proceed with a colorectal resection or whether polypectomy with surveillance alone is sufficient treatment.

This study aims to assess surgeons' interpretation of risk posed by malignant polyps and their pathological features. It is not intended as an individual examination of surgeons' knowledge of malignant polyps. We encourage you to use whatever clinical resources you would normally use in your practice to complete the questionnaire. Furthermore, this study aims to provide background to the development of an online risk calculator for malignant polyps.

All your responses to questions will be de-identified and collated for research purposes only.

We anticipate this questionnaire will take 3-4 minutes to complete.

By returning this survey, consent in this study is implied.
Thank you for your time in completing this survey

De-identified study ID provided by CSSANZ:

A. Demographics

Age:

Sex:

Fellow/consultant:

State/NZ:

Years post fellowship:

Primary facility:

i. Metropolitan

ii. Regional

B. Malignant colorectal polyp

What proportion of malignant polyps are discussed in an MDT or another clinicopathological setting at your hospital to assist in deciding an overall management strategy?

i. All

ii. Select malignant polyps only – depending on pathological and patient factors

iii. None

We are now going to ask you a few questions about assessing the risk of residual cancer in the bowel wall or lymphatic disease from a malignant colorectal polyp.

Assuming a healthy patient who has a low risk from general anaesthesia, what percent risk of residual disease or lymphatic disease would make you advise a patient to have a **colonic** resection as the management strategy for a **colonic** malignant polyp.

_____ %

Assuming a healthy patient who has a low risk from general anaesthesia, what percent risk of residual disease or lymphatic disease from a rectal malignant polyp would make you advise a patient to have an Abdomino-Perineal resection (APR) if there was no possibility of completing a resection in any other manner (i.e. either trans-anally or a rectal resection with anastomosis)

_____ %

Once a patient has been diagnosed with a **colonic** malignant polyp, what imaging studies do you typically arrange to assist in formulating a decision on management strategy? (Please list all modalities utilised)

Once a patient has been diagnosed with a **rectal** malignant polyp, what imaging studies do you typically arrange in to assist in formulating a decision on management strategy? (Please list all modalities utilised)

The assessment of this risk is very difficult and often MDT settings can struggle to form a consensus on the degree of risk posed by a malignant polyp. Some clinicians utilise other resources to help guide a management strategy for patients diagnosed with malignant polyps.

Please list all resources (including MDTs) which you would normally use in your day to day clinical practice when seeing a patient who has been diagnosed with a malignant polyp.

Please consider the following 5 hypothetical malignant polyp pathological reports, and provide the aggregate risk of any residual disease or lymph node metastases given the pathological characteristics. These are all hypothetical situations, as mentioned often the risk posed by malignant polyps is unknown and can be difficult to estimate. We are not wishing to examine clinicians individually here, rather simply gather an opinion on what perceived risks are presented by differing malignant polyps. Please use all resources which you would normally use in your day to day clinical practice when seeing a patient who has been diagnosed with a malignant polyp. Please do not use resources to assess the following risk calculations that you would not normally use in your clinic.

1. **Rectal Polypectomy**

Tumour type: Adenocarcinoma
Differentiation: Low Grade (Well differentiated)
Presence of poorly differentiated areas: None
Adjacent adenoma type: Tubulovillous adenoma
Depth of invasion: 0.5mm
Haggitt level: 1
Kikuchi level: N/A
Width of invasive component: 1.5mm
Lymphovascular invasion: Absent
Tumour budding: None
Closest Margin clearance: 2.5mm
Mismatch repair immunohistochemistry: retained staining for MLH1, PMS2, MSH2 and MSH6

Risk of residual disease/lymphatic disease:

_____ %

2. **Hepatic flexure Polypectomy**

Tumour type: Adenocarcinoma
Differentiation: Low Grade (Moderately differentiated)
Presence of poorly differentiated areas: None
Adjacent adenoma type: Sessile serated lesion
Depth of invasion: 1.2mm
Haggitt level: 4 (Sessile Polyp)
Kikuchi level: Sm2 (Sessile polyp)
Width of invasive component: 3mm
Lymphovascular invasion: Absent
Tumour budding: None
Closest Margin clearance: 1.2mm
Mismatch repair immunohistochemistry: retained staining for MLH1, PMS2, MSH2 and MSH6

Risk of residual disease/lymphatic disease:

_____ %

3. Descending colon polypectomy

Tumour type: Adenocarcinoma
Differentiation: High Grade (Poorly differentiated)
Presence of poorly differentiated areas: Present
Adjacent adenoma type: Tubular adenoma
Depth of invasion: 3.5mm
Haggitt level: 4
Kikuchi level: N/A (Pedunculated polyp)
Width of invasive component: 3mm
Lymphovascular invasion: Present
Tumour budding: Intermediate grade budding
Closest Margin clearance: 2mm
Mismatch repair immunohistochemistry: retained staining for MLH1,
PMS2, MSH2 and MSH6

Risk of residual disease/lymphatic disease:

_____ %

4. Sigmoid colon polypectomy

Tumour type: Adenocarcinoma
Differentiation: Low grade (Moderately differentiated)
Presence of poorly differentiated areas: Absent
Adjacent adenoma type: Tubular adenoma
Depth of invasion: 1.5mm
Haggitt level: 3
Kikuchi level: N/A (Pedunculated polyp)
Width of invasive component: 3mm
Lymphovascular invasion: Absent
Tumour budding: None
Closest Margin clearance: 1.5mm
Mismatch repair immunohistochemistry: retained staining for MLH1,
PMS2, MSH2 and MSH6

Risk of residual disease/lymphatic disease:

_____ %



5. Caecal polypectomy

Tumour type: Adenocarcinoma

Differentiation: Low Grade (Moderately differentiated)

Presence of poorly differentiated areas: None

Adjacent adenoma type: Sessile serrated lesion

Depth of invasion: 0.5mm

Haggitt level: 2

Kikuchi level: N/A (Pedunculated polyp)

Width of invasive component: 2mm

Lymphovascular invasion: Present

Tumour budding: None

Closest Margin clearance: 2.2mm

Mismatch repair immunohistochemistry: Loss of MLH1/PMS2 staining, retained MSH2/6 staining.

Risk of residual disease/lymphatic disease:

_____ %

Precise estimation of adverse risk presented by malignant polyps can be difficult. If a reliable online adverse risk calculator was available, would you use it in clinical practice?

Yes/No