WEO

The voice of world endoscopy

New Zealand Bowel Screening Programme Post Colonoscopy CRC - lessons

Susan Parry

Gastroenterologist

Clinical Lead NBSP

NZ Bowel Screening Programme

Colonoscopy quality requirements and monitoring

Endoscopy Guidance Group of NZ

- Oversight compulsory National Endoscopy Quality Improvement Programme
- Developed standards for Endoscopy units and individuals performing National Bowel Screening colonoscopy

NBSP Colonoscopy Quality Assurance Group

- Colonoscopy Key Performance indicators extracted centrally quarterly –individual , hospital and National
- Unplanned post NBSP colonoscopy admissions categorised by severity

St Marks NBSP Webinar March 2021 - Polypectomy Update for Bowel Screening Colonoscopists

NBSP National Colonoscopy KPI's

National Screening Unit

Time to screen

National Bowel Screening Programme

NBSP Clinical Lead Report

Time period: 01 Jan 2021 to 31 Dec 2022

DHB: National

	Number	Percentage		
NBSP scopes performed*	14464			Target
Scopes with family history completed	11909	82%		≥ 95%
				Target
Scopes where caecum reached	13933	96%		≥ 95%
				Target
Adenoma detection rate	9195	64%		≥ 55%
Scopes that reached caecum and no tissue collected	2027			Target
withdrawal >=6min	1928	95%		≥ 90%
				Target
Repeat colonoscopies (poor bowel prep)~	559	4%		< 5%

Unplanned Related** Admissions within 30 Days of Screening Colonoscopy

Reporting period: 2-years ending 31 December 2022

Unplanned related admissions for 2-year period ending 31 December 2022

Unplanned admission cause*	Tissue Collected				
	National	Colonoscopies	Target (per 100)	Rate (per 100)	Int & Major rate (per 100)
Perforations	7	12,437	Acceptable <0.2 Desirable <0.1	0.06 NC	0.06 (7) NC
Bleeds	89	12,437	<1	0.7 NC	0.4 (48) NC
Other	33	12,437	N/A	0.3 NC	0.06 (7) ↓
Total	**129**	**12,437**	**N/A**	**1.0 ↓**	**0.5 (62) NC**

*Prioritised Perforation>Bleed>Other

** As categorised by DHB. NBSP Clinical Director verifies this categorisation with the DHB.

Unplanned admission cause*	Non-Tissue Collected		
	National	Colonoscopies	Rate (per 100)
Perforations	0	2,027	0 NC
Bleeds	0	2,027	0 NC
Other	5	2,027	0.2 ↑
Total	**5**	**2,027**	**0.2 ↑**

NBSP Post Colonoscopy CRC (PCCRC)

Data extracted from NBSP IT systems quarterly

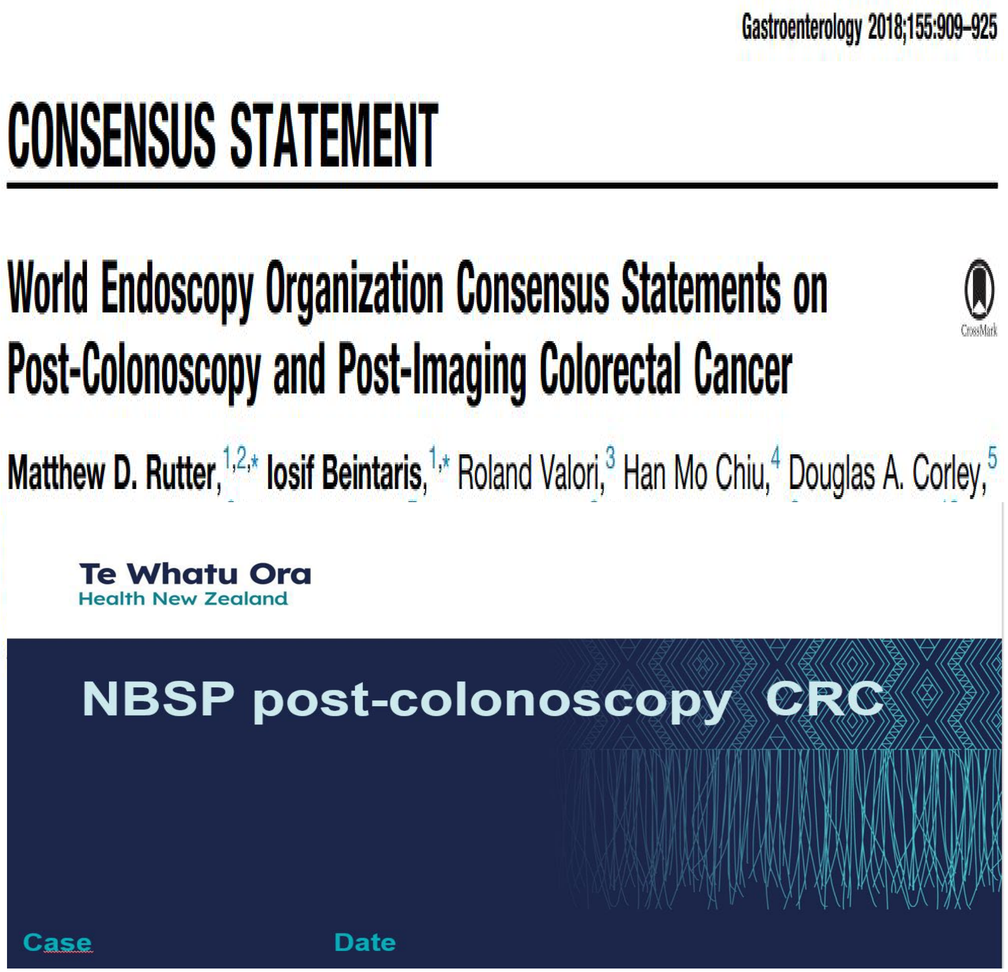
Matched with New Zealand Cancer Registry

Detailed de- identified presentation required for each PCCRC

Information provided covers WEO root cause analysis checklist

PCCRC Categorised according to WEO paper

Lessons circulated to all NBSP Clinical Leads



Crude rate – reported rates very 2.2 to 7.7 %

Interval Cancer Rates

60-74	Initial Screens				Subsequent Screens				All Screens			
	Interval Cancers	Colonoscopies	Rate/1,000 screened	(95% CI)	Interval Cancers	Colonoscopies	Rate/1,000 screened	(95% CI)	Interval Cancers	Colonoscopies	Rate/1,000 colonoscopies	(95% CI)
2017-2018	2	1,990	1.0	(0.3, 1)	0	1,373	-	(0, 0)	2	3,363	0.6	(0.2, 2.2)
2019-2020	10	6,688	1.5	(0.8, 1.5)	0	1,635	-	(0, 0)	10	8,323	1.2	(0.7, 2.2)

Sensitivity

60-74	Initial Screens				Subsequent Screens				All Screens			
	Interval Cancers	Screen detected		Sensitivity (95% CI)	Interval Cancers	Screen detected		Sensitivity (95% CI)	Interval Cancers	Screen detected		Sensitivity (95% CI)
	Initial Screens				Subsequent Screens				All Screens			
2017-2018	2	166	98.8	(95.8, 99.7)	0	31	100	(89, 100)	2	197	99.0	(96.4, 99.7)
2019-2020	10	536	98.2	(96.7, 99)	0	64	100	(94.3, 100)	10	600	98.4	(97, 99.1)

Table 2. Post-Colonoscopy Colorectal Cancer Subcategories

	PCCRC subcategories			
		Non-interval type		
	Interval type	Type A	Type B	Type C
	Detected before recommended screening/surveillance interval	Detected at recommended screening/surveillance interval	Detected after recommended screening/surveillance interval	Where no screening/ surveillance interval had been recommended
Case examples (see Supplementary Material for further examples)	Patient with 2 small adenomas is advised to return for surveillance in 5 y; 4 y later anemia develops; colonoscopy reveals CRC	Patient with a 15-mm adenoma is advised to return for surveillance in 3 y. On surveillance at 3 y CRC is found	Patient with 3 small adenomas is advised to return for surveillance in 3 y. Patient misses this, returns 4 y later with CRC.	Patient investigated for history of change in bowel habit—colonoscopy normal. No further investigation recommended. Five years later patient develops symptoms and a colonoscopy reveals CRC.
Possible implication other than colonoscopy quality (note all may relate to poor-quality index colonoscopy)	The recommended screening/surveillance interval may be too long	The recommended screening/surveillance interval may be too long	Reinforces importance of adherence to recommended screening/surveillance intervals	Review whether subsequent screening/ surveillance may have been appropriate
	5	**2**	**7**	**6**

Lessons: procedure performance

Removing large/sessile polyps

- Good pre and post treatment photos
- Importance complete polyp resection and treating the edge
- Accurate sizing as may influence surveillance interval

Rectum common site missed cancer 6/20

- Ensure good cleaning
- Careful antegrade and retrograde examination
- At least two photographs documenting above

Flexures and diverticular disease contribute to probable missed lesions

- Good cleaning/visualisation with position change/photographs

Lessons: post procedure

Repeat procedures for multiple polyps

- Require good communication
- Oversight by one colonoscopist

Careful histology review in association with colonoscopy report

- Piecemeal resection influences FU interval
- Normal biopsy of lesion may provide false reassurance
- Colonoscopist needs to indicate concern re appearance

False reassurance of a normal colonoscopy

- Persistent symptoms need to be investigated

System failures

- failure to rebook at correct time interval

Conclusions

Regular review of post colonoscopy CRC is important

Highlights performance issues missed by other KPIs

Rapid feedback lessons to colonoscopists is invaluable

Critical for screening programmes

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World Endoscopy Organization