

The clinical value of “exception item” colonoscopy (MBS item 32228)

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Most colonoscopies in Australia are performed in private hospitals and day procedure centres and are subsidised by the Medicare Benefits Schedule (MBS).¹ In November 2019, the MBS introduced six indication-specific colonoscopy items, as well as an “exception” item (32228) for clinically indicated colonoscopy not covered by other item numbers.² Each item can be claimed only at specified intervals; item 32228 is available for a given patient only once. It has been suggested that item 32228, which allows clinician discretion once in a patient’s lifetime, could be removed from the schedule.

In this study, we evaluated how well the MBS items for colonoscopy are correlated with colorectal pathology. It was approved by the UnitingCare Health Human Research and Ethics Committee (2021.04.342). We reviewed all colonoscopies performed at our private practice (GastroIntestinal Endoscopy, Brisbane) during the 2020 calendar year. As part of our continuous quality improvement program, we record all colonoscopy findings and provide quality reports to each colonoscopist. Adenomas and sessile serrated lesions (SSLs) are pre-cancerous polyps, and the adenoma detection rate (ADR) and SSL detection rate (SSLDR) for patients aged 50 years or more (excluding those with poor bowel preparation, colonic resection, or inflammatory bowel disease) are important colonoscopy quality indicators.³ The likelihood of future malignant transformation is greater for advanced adenomas and advanced serrated polyps, pathologically more progressed polyps defined by their histology and size.⁴ We assessed the statistical significance of differences in pathological yield between item 32222 and 32228 colonoscopies in a logistic

generalised linear mixed effects model (quasi-binomial error distribution), with colonoscopist as a random effect.⁵

In 2020, ten experienced colonoscopists at our practice performed 4422 colonoscopies eligible for our analysis. Ninety-three patients underwent more than one colonoscopy during the year. As expected, the ADRs were generally greater for higher risk surveillance items (32223–32226). The proportions of colonoscopies in patients aged 50 years or more in which adenomas were removed, however, were similar for items 32228 and 32222 (diagnostic colonoscopies; 50.8% *v* 56.9%). The SSLDR for patients aged 50 years or more was higher for item 32228 than for item 32222 colonoscopies (38% *v* 27.3%; *P* = 0.001). In colonoscopies for patients aged 50 years or more, the rates of detection of any advanced polyp were also similar for the two items (32222: 21.5%; 32228: 20%) (Box). Fifteen colorectal cancers were identified, 14 by item 32222 colonoscopies and one by an item 32223 colonoscopy.

Colonoscopy quality is a major focus of our practice. It is possible that the pathological yield for 32228 colonoscopies is lower in practices with overall lower polyp detection rates.

Our findings suggest that about one in five “exception” colonoscopies (item 32228) detect and excise advanced pre-cancerous polyps. Deleting item 32228 from the MBS would reduce quality of care for people.

Competing interests: No relevant disclosures. ■

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- 1 Australian Commission on Safety and Quality in Health Care. Colonoscopy clinical care standard. Jan 2020. <https://www.safetyandquality.gov.au/publications-and-resources/resource-library/colonoscopy-clinical-care-standard-2020> (viewed July 2021).
- 2 Australian Department of Health. Changes to MBS Items for colonoscopy services factsheet. Updated Dec 2019. <http://www.mbsonline.gov.au/internet/mbsonline/publishing.nsf/Content/Factsheet-Colonoscopy> (viewed July 2021).
- 3 Appleyard M, Brown G, Raftopoulos S, et al; Cancer Council Australia Surveillance Colonoscopy Guidelines Working Party. Quality of colonoscopy. In: Clinical practice guidelines for surveillance colonoscopy. Updated Mar 2019. <https://wiki.cancer.org.au/australiawiki/index.php?oldid=200663> (viewed Jan 2021).
- 4 Barclay K, Leggett B, Macrae F, et al; Cancer Council Australia Surveillance Colonoscopy Guidelines Working Party. Colonoscopy surveillance after polypectomy. In: Clinical practice guidelines for surveillance colonoscopy. Updated Mar 2019. <https://wiki.cancer.org.au/australiawiki/index.php?oldid=200665> (viewed Jan 2021).
- 5 Venables WN, Ripley BD. Modern applied statistics with S. 4th edition. New York: Springer, 2002. ■

Pathological yield of colonoscopy, by MBS item number and age

MBS item: indication/interval,* by age group	Total number	Adenoma	Advanced adenoma	Sessile serrated lesion	Advanced sessile serrated lesion	Adenoma or sessile serrated lesion	Advanced adenoma or advanced sessile serrated lesion
All items							
All ages	4422	2262 (51.2%)	401 (9.1%)	1391 (31.5%)	531 (12%)	2913 (65.9%)	858 (19.4%)
Under 50 years	1130	342 (30.3%)	54 (4.8%)	393 (34.8%)	157 (13.9%)	592 (52.4%)	197 (17.4%)
50 years or more	3292	1920 (58.3%)	347 (10.5%)	998 (30.3%)	374 (11.4%)	2321 (70.5%)	661 (20.1%)
32222: diagnostic/daily							
All ages	2264	1060 (46.8%)	226 (10%)	652 (28.8%)	253 (11.2%)	1378 (60.9%)	439 (19.4%)
Under 50 years	771	210 (27.2%)	38 (4.9%)	244 (31.6%)	90 (12%)	368 (47.7%)	118 (15.3%)
50 years or more	1493	850 (56.9%)	188 (12.6%)	408 (27.3%)	163 (10.9%)	1010 (67.6%)	321 (21.5%)
32223: moderate risk of colorectal cancer (family history) or past polyps or cancer/5-yearly							
All ages	1182	658 (55.7%)	89 (7.5%)	354 (29.9%)	139 (11.8)	819 (69.3%)	212 (17.9%)
Under 50 years	173	70 (40%)	9 (5%)	58 (34%)	30 (17%)	102 (59%)	36 (21%)
50 years or more	1009	588 (58.3%)	80 (7.9%)	296 (29.3%)	109 (10.8%)	717 (71.1%)	176 (17.4%)
32224: past advanced or numerous polyps/3-yearly							
All ages	325	209 (64.3%)	37 (11%)	106 (32.6%)	39 (12%)	248 (76.3%)	71 (22%)
Under 50 years	30	14 (46.7%)	0	17 (57%)	8 (30%)	21 (70%)	8 (30%)
50 years or more	295	195 (66%)	37 (13%)	89 (30%)	31 (11%)	227 (76.9%)	63 (21%)
32225: high risk surveillance/four times per year							
All ages	259	147 (56.8%)	19 (7.3%)	120 (46.3%)	44 (17%)	204 (78.8%)	58 (22%)
Under 50 years	60	16 (27%)	1 (2%)	33 (55%)	15 (25%)	42 (70%)	16 (27%)
50 years or more	199	131 (65.8%)	18 (9.0%)	87 (44%)	29 (15%)	162 (81.4%)	42 (21%)
32226: familial syndromes/annually							
All ages	72	31 (43%)	4 (6%)	41 (57%)	15 (21%)	54 (75%)	17 (24%)
Under 50 years	35	7 (20%)	2 (6%)	23 (66%)	9 (26%)	25 (71%)	10 (29%)
50 years or more	37	24 (65%)	2 (5%)	18 (49%)	6 (20%)	29 (78%)	7 (20%)
32227: therapeutic/daily							
All ages	1	1 (100%)	1 (100%)	0	0	1 (100%)	1 (100%)
Under 50 years	0	0	0	0	0	0	0
50 years or more	1	1 (100%)	1 (100%)	0	0	1 (100%)	1 (100%)
32228: exception/once only							
All ages	319	156 (48.9%)	25 (7.8%)	118 (37%)	41 (13%)	209 (65.5%)	60 (19%)
Under 50 years	61	25 (41%)	4 (7%)	19 (31%)	5 (8%)	34 (56%)	9 (15%)
50 years or more	258	131 (50.8%)	21 (8.1%)	99 (38%)	36 (14%)	175 (67.8%)	51 (20%)

MBS = Medical Benefits Schedule. * For a full description of indication and interval for MBS item numbers, see reference 2. ♦