Kvalita screeningové kolonoskopie a jak ji sledovat

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Obsah sdělení

Indikátory kvality kolonoskopie

ADR a alternativy

Novinky 2015 a výhled do budoucna

Sledování kvality v praxi

Sledování kvality kolonoskopie

Quality in screening colonoscopy: position statement of the European Society of Gastrointestinal Endoscopy (ESGE)

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Bibliography
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Background

Many countries in Europe are now introducing screening for colorectal cancer [1]. This considerable investment adds to national economic burdens and must be audited to demonstrate that it is cost-effective, well-targeted and of high quality. Spending more money, having more doctors, admitting more patients or having a nearby "center of excellence" does not necessarily result in improved outcomes.

The provision of healthcare services is most effective when delivered in an organized and coordinated way [2]. Ad hoc screening for breast and cervical cancer has been shown to be less efficient and poorer value for money compared with screening delivered by an organized cancer screening program [3–12].

The International Agency for Research on Cancer defines an organized cancer screening program as having: (i) an explicit policy with defined methods including screening intervals; (ii) a clearly defined target population; (iii) a management team for implementation and to monitor uptake; (iv) a clinical healthcare team to decide on clinical matters; (v) a detailed quality assurance program; and (vi) a method for identifying cancer occurrence and death in both the target and the background populations [13].

Until recently, the only method of screening which had been tested in randomized prospective studies was the guaiac fecal occult blood test (FOBT) [14–18]. This screening method is therefore the only one that is recommended by the European Union [19]. Several European countries now have a FOBT-based organized screening program in place (Finland, France, Italy, Czech Republic, and the United Kingdom) and further countries are planning to introduce such a program. Several trials of flexible sigmoidoscopy have been recently reported or are due to report soon [20–22].

Methodology

The European Society of Gastrointestinal Endoscopy (ESGE) commissioned this Position Statement. A small working group was convened, with representation from Italy, France, the UK, Switzerland, Egypt, and Germany. The development process for this document included online discussions among members of the entire committee during 2009 and 2010.

A literature search was carried out on the Medline and Cochrane databases. Articles were first selected by title; their relevance was then confirmed by review of the corresponding abstract, and publications with content that was considered irrelevant were excluded. Additional articles were identified by manually searching the reference lists of retrieved papers. The evidence was not formally graded.

Searches were re-run in December 2010.

The recommendations are relevant to individuals and institutions involved in colorectal cancer screening, to ensure that screenees have access to screening with consistently reproducible high standards.

It is emphasized that this document does not consider the respective advantages of different screening modalities or quality assurance (QA) items related to flexible sigmoidoscopy. In addition, this document does not advise on QA issues outside the direct remit of screening colonoscopy, such as benchmarking the screening uptake, coverage, compliance, or timeliness of the screening service. Finally, this document does not address how screeners should be trained and accredited.

For a complete review of the merits of different methods of screening for colorectal cancer we refer to the recent guideline produced by the European Union [23]. This guideline also discusses the impact of different screening methodologies on endoscopic, histological, radiological, surgical, and oncological services.

QUALITY INDICATORS FOR GI ENDOSCOPIC PROCEDURES

Quality indicators for colonoscopy

Colonoscopy is widely used for the diagnosis and treatment of colon disorders. Properly performed, colonoscopy is generally safe, accurate, and well-tolerated. Visualization of the mucosa of the entire large intestine and distal terminal ileum usually is possible during colonoscopy. Polyps can be removed during colonoscopy, thereby reducing the risk of colon cancer. Colonoscopy is the preferred method to evaluate the colon in most adult patients with large-bowel symptoms, iron deficiency anemia, abnormal results on radiographic studies of the colon, positive results on colorectal cancer (CRC) screening tests, post-polypectomy and post-cancer resection surveillance, and diagnosis and surveillance in inflammatory bowel disease. In addition, colonoscopy is the most commonly used CRC screening test in the United States.[1] Based on 2010 data, over 3.3 million outpatient colonoscopies are performed annually in the United States, with screening and polyp surveillance accounting for half of indications.[2]

Optimal effectiveness of colonoscopy depends on patient acceptance of the procedure, which depends mostly on acceptance of the bowel preparation.[3] Preparation quality affects the completeness of examination, procedure duration, and the need to cancel or repeat procedures at earlier dates than would otherwise be needed.[4,5] Ineffective preparation is a major contributor to costs.[6] Meticulous inspection[7,8] and longer withdrawal times[9-14] are associated with higher adenoma detection rates (ADR). A high ADR is essential to rendering recommended intervals[15] between screening and surveillance examinations safe.[16,17] Optimal technique is needed to ensure a high probability of detecting dysplasia when present in inflammatory bowel disease.[17-21] Finally, lesions that are endoscopically subtle or difficult to remove, such as sessile serrated polyps and flat and/or depressed adenomas, and differences in tumorigenesis between right-sided and left-sided cancers. Improving prevention of right-sided colon cancer is a major goal of colonoscopy quality programs.

Five studies have established that gastroenterologists are more effective than surgeons or primary care physicians at preventing CRC by colonoscopy.[27,29,32] This most likely reflects higher rates of complete examinations (ie, cecal intubation)[30] and higher rates of adenoma detection among gastroenterologists.[33,34] All endoscopists performing colonoscopy should measure the quality of their colonoscopy. Institutions where endoscopists from multiple specialties are practicing should reasonably expect all endoscopists to participate in the program and achieve recommended quality benchmarks.

The quality of health care can be measured by comparing the performance of an individual or a group of individuals with an ideal or benchmark.[35] The particular parameter that is being used for comparison is termed a quality indicator. A quality indicator often is reported as a ratio between the incidence of correct performance and the opportunity for correct performance[4] or as the proportion of interventions that achieve a predefined goal.[35] Quality indicators can be divided into 3 categories: (1) structural measures—these assess characteristics of the entire health care environment (eg, participation by a physician or other clinician in systematic clinical database registry that includes consensus endorsed quality measures), (2) process measures—these assess performance during the delivery of care (eg, ADR and adequate biopsy

Sledování kvality kolonoskopie

Screeningovou kolonoskopii podstupují asymptomatičtí jedinci

Endoskopické odstranění adenomů má pozitivní vliv na incidenci, mortalitu a morbiditu KRK

Snížená protekce proti karcinomu v pravém tračníku

Úhrada od pojišťoven vázaná na vykazování indikátorů kvality

Singh H et al. Gastroenterology. 2010, Brenner H et al. Ann Intern Med. 2011

Burwell, N Engl J Med. 2015,Winawer SJ et al. N Engl J Med 1993;329:1977-81

Rex DK Gastrointest Endosc Clin N Am 2000;10:135-60

Prioritní indikátory kvality

1. **ADR**
2. **Doporučené dispenzární intervaly**
3. **Intubace céka s fotodokumentací**

Všeobecné indikátory pro endoskopické výkony

Kolonoskopické indikátory: preprocedurální

periprocedurální

postprocedurální

Indikátory preprocedurální

Indikace – správná a zdokumentovaná > 80 %

Informovaný souhlas s vyšetřením > 98 %

Správný dispenzární interval pro pacienty s IBD ≥ 90 %

Správný dispenzární interval – po polypektomii / po resekci karcinomu / u screeningu ≥ 90%

Dispenzarizace po polypektomii

Bez polypu	10 let
Hyperplastický levostranný polyp	10 let
1-2 tubulární adenomy <10 mm	5-10 let
3 a více tubulárních adenomů	3 roky
Tubulární adenom ≥10 mm	3 roky
Vilózní adenom (>25%)	3 roky
Adenom s HGD	3 roky
>10 adenomů	<3 roky
Resekce piecemeal	2-3 měsíců
Karcinom	1 rok
Serrated adenom – polypóza	1 rok
Serrated adenom – dysplazie/≥10 mm	3 roky
Serrated adenom – bez dysplazie/<10 mm	5 let

Indikátory intraprocedurální

Kvalita střevní přípravy – zdokumentovaná (> 98 %) a adekvátní (>85%)

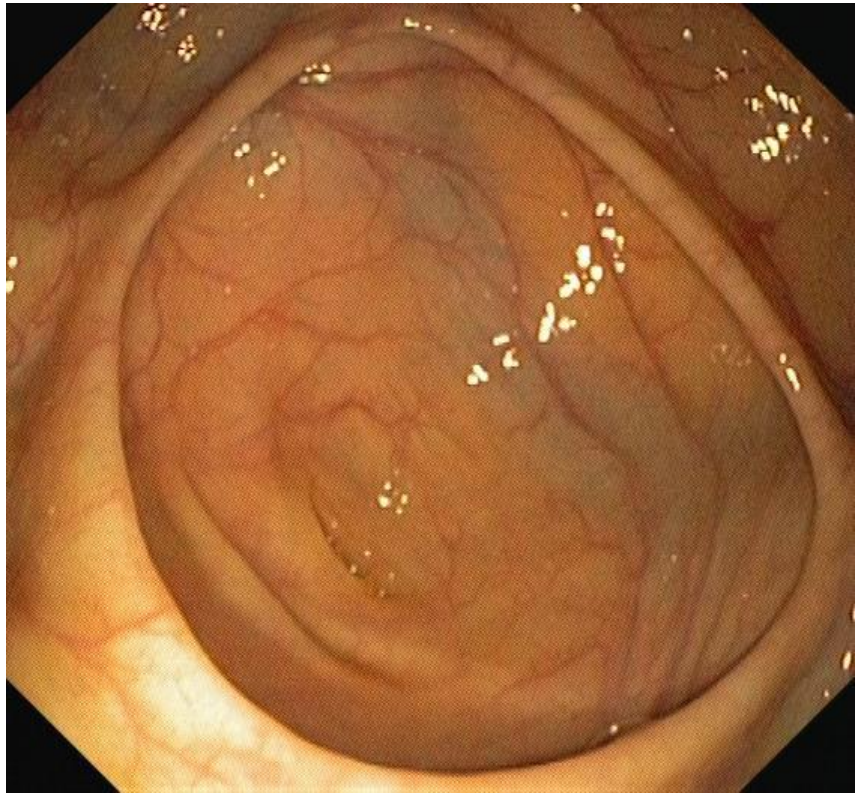
Dosažení céka s fotodokumentací (≥ 90 / 95 %)

ADR ≥ 25 %

Prohlížecí čas ≥ 6 min, měření > 98 %

Biopsie u průjmů / IBD > 98 %

Správná endoskopická léčba – endoskopický pokus o resekci polypů nad 2 cm > 98 %



Indikátory postproceduralní

Incidence komplikací

Perforace < 1:500 pro všechna vyšetření

Perforace < 1 : 1000 pro screening

Krvácení po polypektomii < 1 %

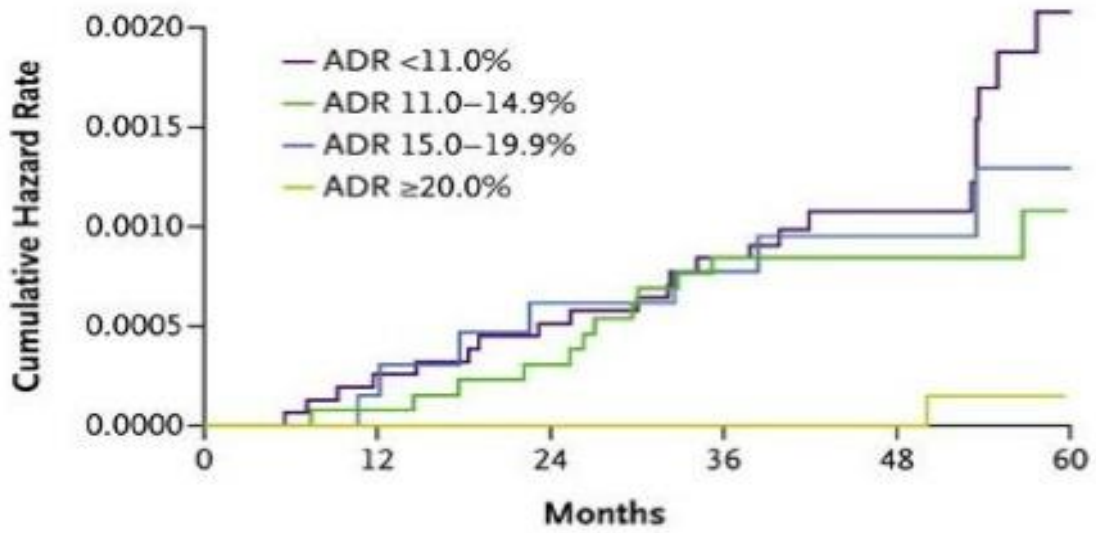
Endoskopická zástava krvácení po polypektomii ≥ 90 %

Doporučení dispenzarizace ≥ 90 %

Adenoma detection rate

Zlepšení / udržení nad 24 %

↓ rizika intervalového KRK
OR 0.63
↓ rizika úmrtí na KRK
OR 0.52

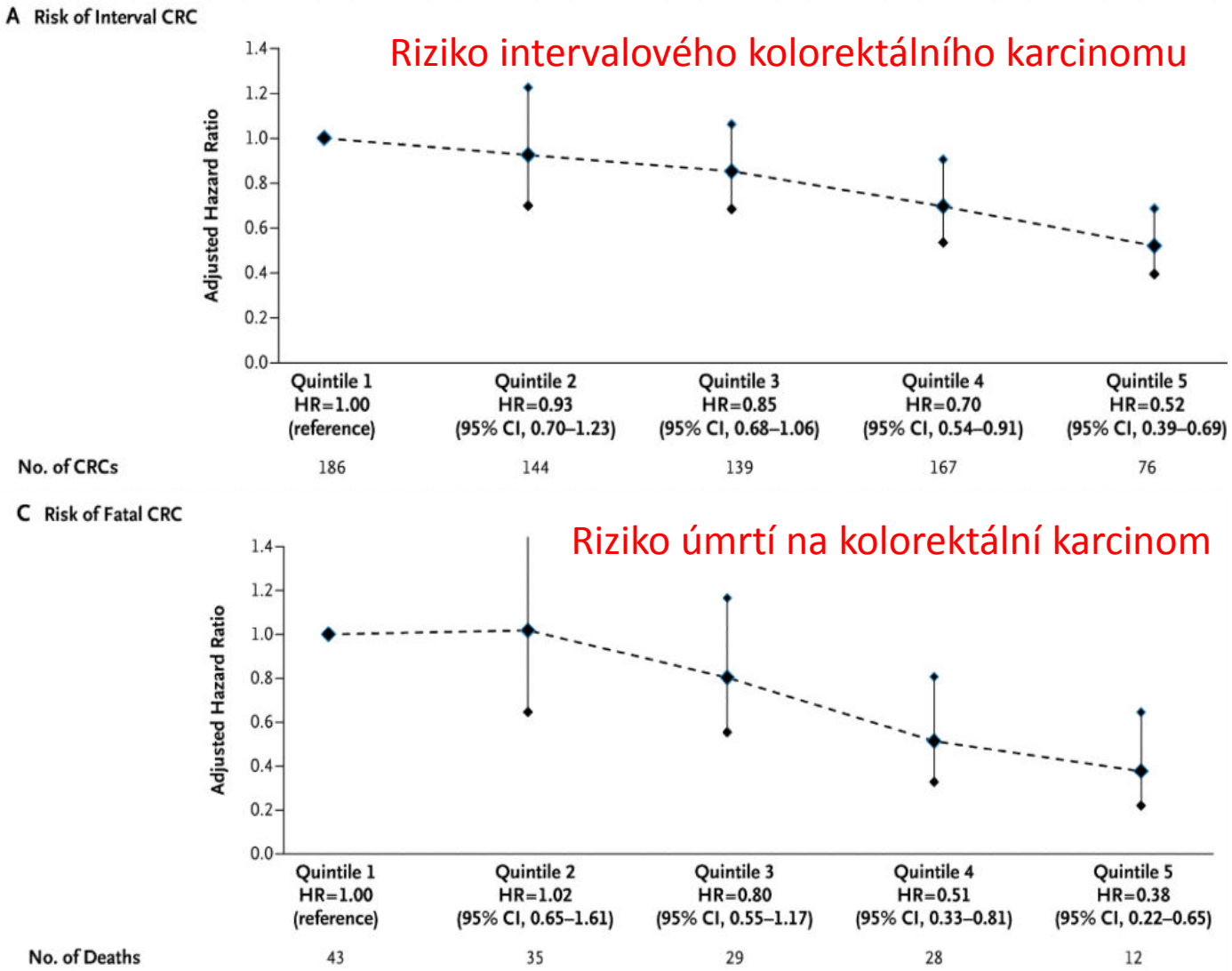


No. at Risk						
ADR <11.0%	15,883	15,805	15,744	15,669	9355	4717
ADR 11.0–14.9%	13,281	13,223	13,182	13,120	7571	4003
ADR 15.0–19.9%	6,607	6,582	6,562	6,539	4022	2529
ADR ≥20.0%	9,255	9,235	9,202	9,166	7155	5548

Kaminski MF et al. N Engl J Med. 2010

Kaminski, DDW 2015

Adenoma detection rate



↑ ADR o 1 %

↓ intervalového KRK o 3 %

↓ mortality o 5 %

Corley, NEJM 2014

Adenoma detection rate

Nad **20 %** (nad 25 % u mužů a 15 % u žen nad 50 let)

Rex DK at al. Am J Gastroenterol 2002;97:1296-308

V běžné praxi vyšší ADR

864 screeningových kolonoskopií ADR – 33.7 %

Muži 41.2 % ($p<0.0001$)

Ženy 25.4 % ($p=0.0003$)

Coe SG et al. Gastrointest Endosc 2013;77:631-5

Adenoma detection rate

ADR nad **25 %**

nad 20 % u žen

nad 30 % u mužů

Kromě pohlaví a věku ovlivňuje ADR kouření, obezita, diabetes mellitus …

Korekce ADR k těmto faktorům v současnosti není doporučována

Rex, Gastrointest Endosc 2015

Adenoma detection rate

Manuální vkládání histologie

Čekání na histologii

Možný „one and done“ přístup

Polyp detection rate (PDR)

Méně času i práce, není nutná histologie
Možné využití při „resect and discard“ strategii

Muži: ADR 25 % koreluje s PDR 36.7 %
Ženy: ADR 15 % koreluje s PDR 26.7 %

Vliv PDR na incidenci intervalového KRK

Baxter N. et al. Gastroenterology. 2011, Lieberman D et. al. GI Endoscopy. 2015
Kessler WR et al. Endoscopy 2011;43:683-691
Rembacken B et al. Endoscopy 2012;44:957-968
Williams et al. GI endoscopy 2012

Adenoma per colonoscopy (APC)

Zohledňuje kvalitu inspekce celého střeva

Více diferencuje jednotlivé endoskopisty

Zatím nejslibnější alternativa ADR

Nejsou stanoveny doporučené hodnoty

Rex, Gastrointest Endosc 2015

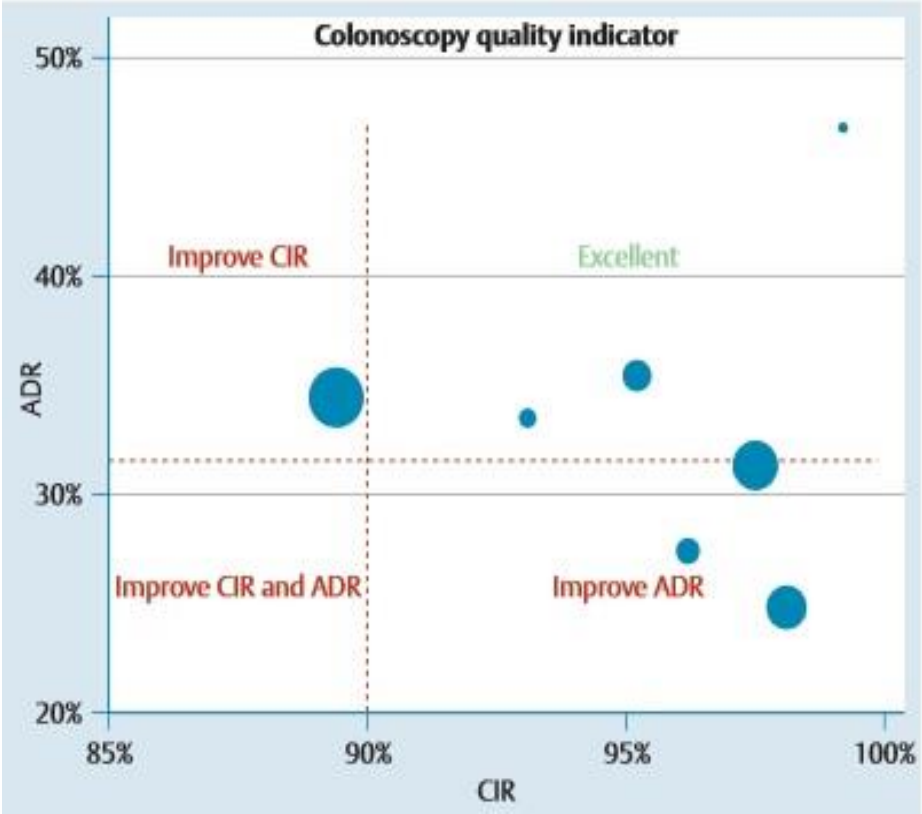
Barclay LR et al. N Engl J Med. 2006

Colonoscopy quality indicator (CQI)

Kombinace ADR a intubace céka

Srovnávání jednotlivých institucí

Belderbos Tim DG et al. Endoscopy 2015



Adekvátní resekční technika

Forceps removal rate FRR ≥ 5 mm

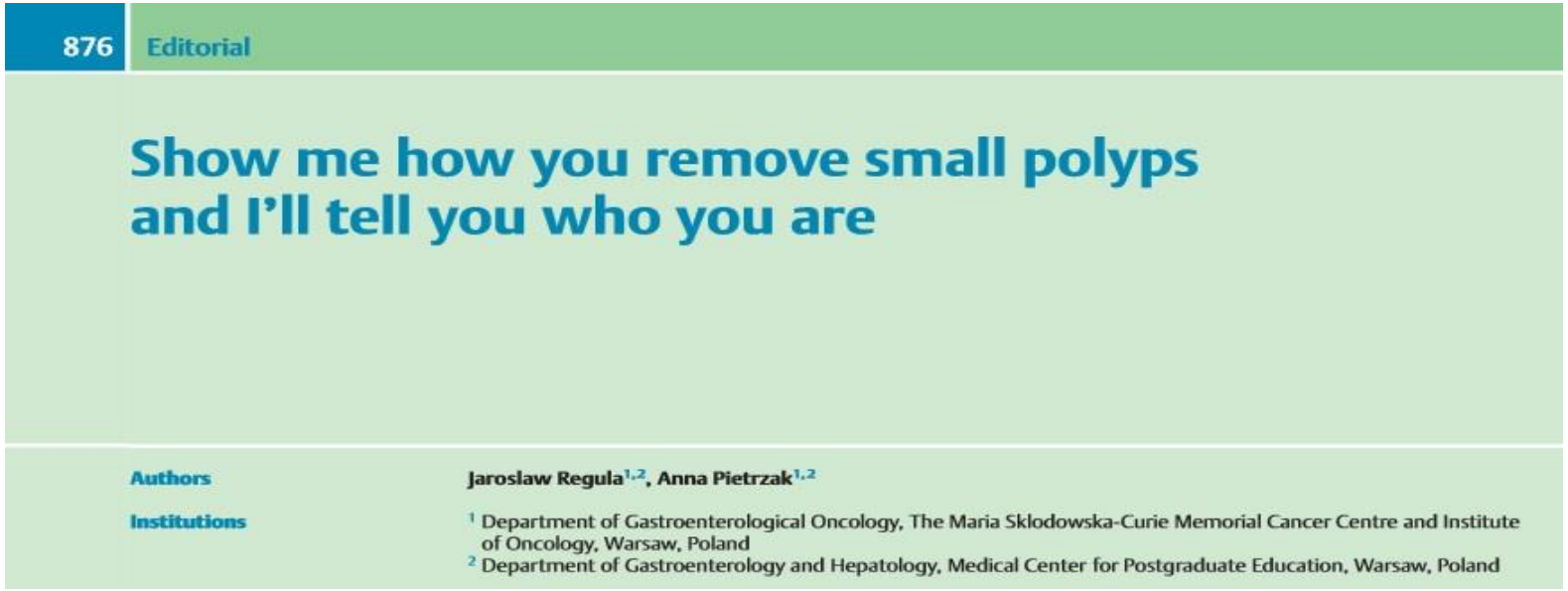
Bioptické kleště

polypy < 5 mm

Cold snare

polypy ≥ 5 mm

Steele JR et al. Endoscopy 2012



876 Editorial

Show me how you remove small polyps and I'll tell you who you are

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Adekvátní resekční technika

128 969 screeningových kolonoskopií v Rakousku, 278 endoskopických jednotek:

PDR 39.6 %, 95.6 % polypů resekováno

46 % polypů ≥ 5 mm resekováno bioptickými kleštěmi

FRR ≥ 5 mm korelovalo s ADR (p=0.0007) i s procentem dosažení céka (p=0.0001)

Britto-Arias Martha et al. Endoscopy 2015

Sledování kvality

Tvorba počítačových programů umožňujících sledování kvality

van Doorn SC et al. Endoscopy. 2014

Beskydské Gastrocentrum: Tabulka Excel

Údaje o pacientovi (pohlaví, věk, medikace)

Vyšetřující kolonoskopista

Údaje o vyšetření (typ vyšetření, indikace, dosažení céka, intubace ilea, počet nalezených lézí)

Záznam komplikací

Histologické vyšetření

Sledování kvality kolonoskopie

ADR

Procento dosažení céka

Komplikace

Závěry

Sledování kvality je nedílnou součástí endoskopické práce

Zvýšení limitu ADR na 25 %

Zlepšení ADR má vliv na incidenci i mortalitu kolorektálního karcinomu

Zahrnutí adekvátní resekční techniky do sledovaných parametrů