
GI ON DEMAND
Access GI Expertise, Educational Resources and Support for You and Your Patients
Registered Dietitians
GI Psychologists
GI Sub-Specialists
APP
Patient
GI
Genetic Testing
Telehealth Features
Education Resources
A Free ACG Member Benefit Designed to Help You and Your Patients!
Learn More and Join Today at
GIONDEMAND.COM

1


2023
ACG HEPATOLOGY SCHOOL & WESTERN
REGIONAL POSTGRADUATE COURSE
JANUARY 27-29, 2023 | CAESARS PALACE LAS VEGAS, NEVADA
Register online: meetings.gi.org

2


FEBRUARY 24-26, 2023
HILTON RIVERSIDE HOTEL
NEW ORLEANS, LOUISIANA
2023
ACG is coming to a city near you!
ACG / LGS REGIONAL
POSTGRADUATE COURSE
EARN UP TO 11.5 CME CREDITS | EARN UP TO 11.5 MOC POINTS
LGS LOUISIANA GASTROENTEROLOGY SOCIETY

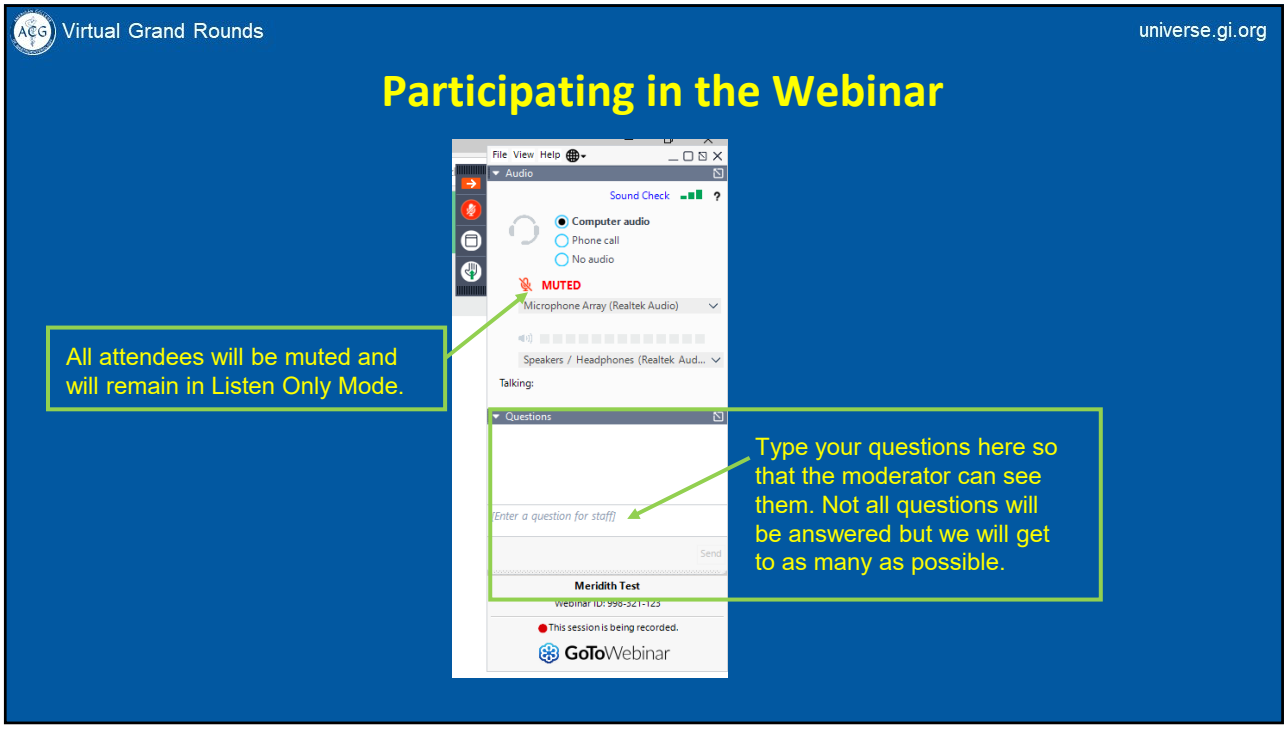
3


2023
ACG / FGS ANNUAL
SPRING SYMPOSIUM
MARCH 10-12, 2023 | HYATT REGENCY COCONUT POINT
NAPLES, FLORIDA
Register online: meetings.gi.org

4


ACG
2023
OCTOBER
20–25, 2023
VANCOUVER, CANADA
VANCOUVER
Save the Date!
Be sure your passport is up to date!

5


Virtual Grand Rounds
universe.gi.org
Participating in the Webinar
All attendees will be muted and will remain in Listen Only Mode.
File View Help
Audio
Sound Check
Computer audio
Phone call
No audio
MUTED
Microphone Array (Realtek Audio)
Speakers / Headphones (Realtek Aud...
Talking:
Questions
Enter a question for staff
Send
Meridith Test
This session is being recorded.
GoToWebinar
Type your questions here so that the moderator can see them. Not all questions will be answered but we will get to as many as possible.

6

Virtual Grand Rounds universe.gi.org

How to Receive CME and MOC Points

LIVE VIRTUAL GRAND ROUNDS WEBINAR

ACG will send a link to a CME & MOC evaluation to all attendees on the live webinar.

ABIM Board Certified physicians need to complete their MOC activities by December 31, 2022 in order for the MOC points to count toward any MOC requirements that are due by the end of the year. No MOC credit may be awarded after March 1, 2023 for this activity.

7

Virtual Grand Rounds universe.gi.org

MOC QUESTION

If you plan to claim MOC Points for this activity, you will be asked to: Please list specific changes you will make in your practice as a result of the information you received from this activity.

Include specific strategies or changes that you plan to implement.
THESE ANSWERS WILL BE REVIEWED.

8

Virtual Grand Rounds universe.gi.org

ACG Virtual Grand Rounds

Join us for upcoming Virtual Grand Rounds!


Week 50 – Thursday, December 15, 2022
Optimal Positioning of Small Molecule Treatment Options in IBD
Faculty: David T. Rubin, MD, FACG
Moderator: Samir A. Shah, MD, FACG
At Noon Eastern and NEW! **8pm Eastern!**

There will be NO Virtual Grand Rounds until January 5, 2023.
Have a wonderful holiday season and a happy New Year!


Week 1 –Thursday, January 5, 2023
AI in GI
Faculty: Seth A. Gross, MD, FACG
Moderator: Nasim Parsa, MD
At Noon Eastern and NEW! **8pm Eastern!**

Visit **gi.org/ACGVGR** to Register

9

ACG 2023

OCTOBER 20–25, 2023
VANCOUVER, CANADA

VANCOUVER

Save the Date!

Be sure your passport is up to date!

10

Virtual Grand Rounds universe.gi.org

Disclosures

Aasma Shaukat, MD, MPH, FACG
Freenome, Inc: Consultant; Medtronic , Italy: Consultant; Motus GI: Consultant

Asmeen Bhatt, MD
Boston Scientific- Stocks
Medtronics- Stocks

**All of the relevant financial relationships listed for these individuals have been mitigated*

11

Virtual Grand Rounds universe.gi.org

ADR, PDR, or IRR: What Are My Quality Metrics for Colonoscopy?

Aasma Shaukat MD MPH FACG
Director GI Outcomes Research,
Robert M and Mary H. Glickman Professor of Medicine
Professor of Population health
NYU Grossman School of Medicine

12

Virtual Grand Rounds

Quality Metric and Benchmarks

universe.gi.org

Pre-Procedure	Target
Appropriate indication documented	>80%
Informed Consent	>98%
Appropriate Surveillance Interval	>=90%

Intraprocedure	Target
Bowel Prep Quality (Adequate)	≥85%
Cecal Intubation	≥90% all, ≥95% screening
Adenoma Detection Rate	≥25% All ≥30% (M) ≥ 20% (F)
Withdrawal Time (>=6min)	>98%
Attempted endoscopic removal of polyps before surgery referral	>98%

Post-Procedure	Target
Perforation rate	<1:500 all, <1:1000 screening
Post-Polypectomy Bleeding incidence	<1%
Surveillance interval recommendation	≥ 90%

ACG/ASGE practice guideline: Measuring the Quality of Endoscopy. Gastrointest Endosc 2006;58:S1-S38;

Rex et al. GIE 2015; 81: 31-53;

May, F and Shaukat A. State of the Science on Quality Indicators for Colonoscopy and How to Achieve Them. American Journal of Gastroenterology 2020; 115(8):1183-1190

13

Virtual Grand Rounds

universe.gi.org

Adenoma detection rate

- ADR during screening colonoscopies in average risk men and women over age 50 (now 45)

  $\frac{\text{\# of COL where at least 1 adenoma is found}}{\text{Total \# of COL performed}}$

  In a given time period per endoscopist
- Higher ADR= higher quality exam = fewer missed cancers
- Goal is **25%**
  - ≥ 30% for men ≥50 yrs
  - ≥ 20% for women ≥50 yrs
- Does NOT include SSA/SSL

Rex DK et al. Quality in the technical performance of colonoscopy and the continuous quality improvement process for colonoscopy: recommendations of the U.S. Multi-Society Task Force on Colorectal Cancer. Am J Gastroenterol 2002;97:1296-308.

ASGE practice guideline: Measuring the Quality of Endoscopy. Gastrointest Endosc 2006;58:S1-S38 Gastrointest Endosc 2006;58:S1-S38

Rex DK et al. GIE 2015; 81: 31-53

14

Virtual Grand Rounds

universe.gi.org

ADR and interval CRC

- Kaiser Permanente Northern California health plan members
- COL for any indication 1998-2010
- Follow-up: 10 yrs, another COL, CRC diagnosis, Jan 2011, termination of membership
- 139 Gastroenterologists (min>300 COL, >75 screening COL)

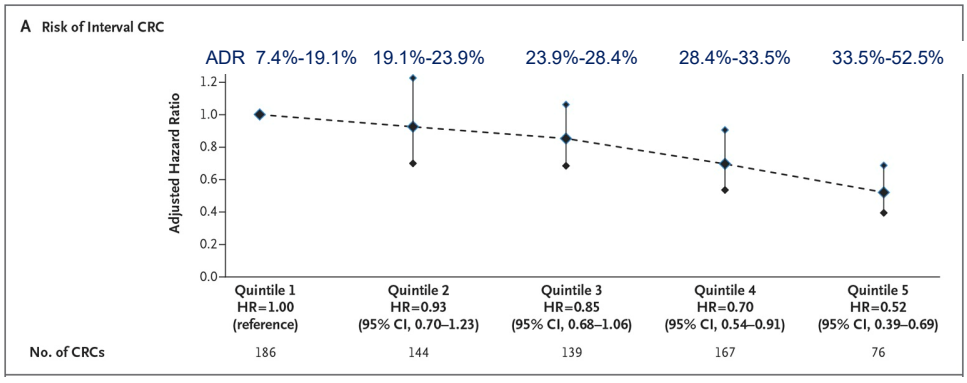
Corley D et al. NEJM 2014;370:2539-41

15

Virtual Grand Rounds

universe.gi.org

ADR and Risk of Interval Cancer



Each 1% increase in ADR is associated with 3% decrease in risk of CRC

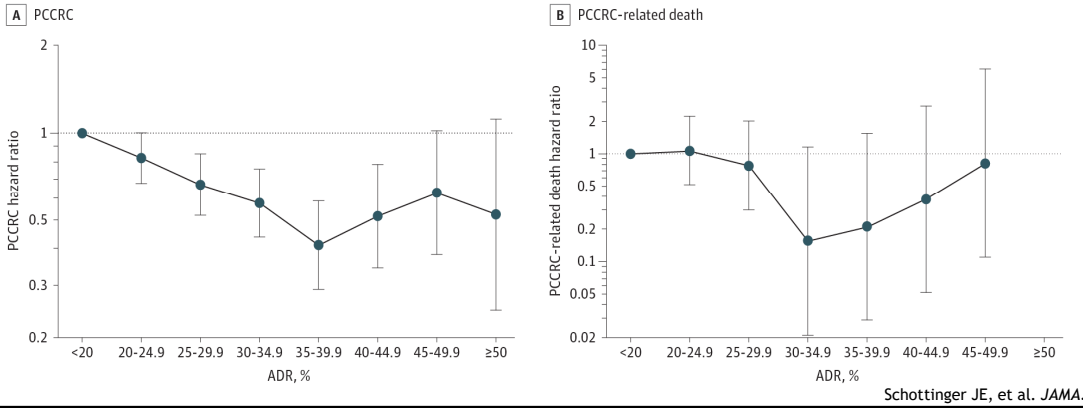
16

Virtual Grand Rounds

universe.gi.org

ADR and Risk of Interval Cancer

- Kaiser Permanente Northern California, Kaiser Permanente Southern California, and Kaiser Permanente Washington
- 43 endoscopy centers, 383 eligible physicians, and 735 396 patients 50-75 w negative COL between January 2011 and June 2017, follow-up through December 2017
- ADR above median of 28% associated with lower risk of PCCRC (1.79 vs 3.10 cases per 10 000 person-years)
- Lower risk of PCCRC death (0.05 vs 0.22 cases per 10 000 person-years)



Schottinger JE, et al. *JAMA*. 2022;327(21):2114-2122

17

Virtual Grand Rounds

universe.gi.org

APC

- ADR limitations: "One and done" phenomenon
- Adenomas per colonoscopy (APC): Total number of adenomas / Total number of colonoscopies
- Endoscopists with similar ADR rates have shown significant differences in APC rates

ADR		
	< 25%	**≥ 25%**
APC		
Q1, N(%)	11,372 (52.4%)	10,332 (47.6%)
Q4, N %)	0 (0.0%)	19,192 (100.0%)

- APC associated with Adenoma Miss Rate
- APC associated with post-colonoscopy CRC rates

Kahi et al., *Clinical Gastroenterology and Hepatology*, 2009. Zhao et al., *Gastroenterology*, 2019. Shaukat et al., *Endoscopy International Open*, 2020. Wieszczy P, et al. CGH 2022;24:S1542-3565(22)00298-1

18

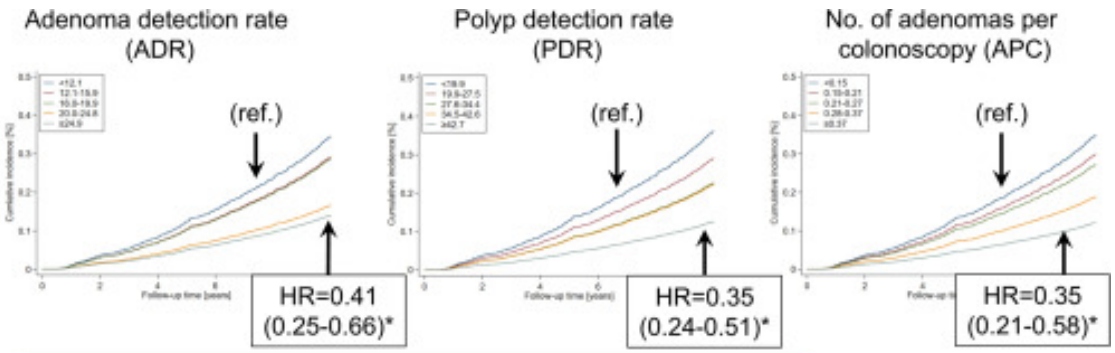
Virtual Grand Rounds

universe.gi.org

Polyp Detection Rate is associated with PCCRC

- Polish Screening Colonoscopy Program 2000-2011
- N=173,287 ; 262 Endoscopists; 395 CRC over 10 years follow-up
- ADR, PDR and APC associated with PCCRC and CRC death
- ADR 25%=PDR 43%

Wieszczy P, et al. CGH 2022;24:S1542-3565(22)00298-1



ADR ≥25% have similar effect on colorectal cancer risk and death as: **PDR ≥43%** and **APC ≥37%**

*Hazard ratio for colorectal cancer incidence (95% confidence interval)

Clinical Gastroenterology and Hepatology

19

Virtual Grand Rounds

universe.gi.org

Sessile serrated polyp detection rate and PCCRC

- Sessile serrated polyp, traditional serrated adenoma, large [≥1 cm] or proximal hyperplastic polyp >5 mm
- Average SSDR from GiQuiC: 5 million COL, 4000 endoscopists: **6%**
- Associated with PCCRC:
- NH Colonoscopy Registry: Compared to endoscopists with SSDR<3%:
  - Lower risk of PCCRC SSDR 3% to <9% (HR 0.57; 95% CI .39-.83)
  - 9% or higher (HR .39; 95% CI .20-.78)

Shaukat A, et al. Am J Gastroenterol. 2021 1;116(1):95-99. Anderson JC, Gastrointest Endosc. 2022;96(2):310-317.

20

Virtual Grand Rounds universe.gi.org

Incomplete Resection Rate

- 346 neoplastic polyps removed by 11 gastroenterologists: IRR 10.1% (6% to 22%)
- IRR significantly higher for large (10–20 mm) than small (5–9 mm) neoplastic polyps: 17.3% vs 6.8%; RR = 2.1
- Higher for SSLs than TA :31.0% vs 7.2%; RR = 3.7
- **Follow up surveillance:**
  - Risk for metachronous neoplasia was greater in segments with incomplete versus complete resection 52% vs. 23%;RD 28% [95% CI 9% to 47%]
  - greater risk for advanced neoplasia 18% vs. 3%; RD 15% [95% CI 1% to 29%]
  - IRR was the strongest independent factor for metachronous neoplasia: OR 3.0 [CI, 1.12 to 8.17]

Pohl H et al. Gastroenterology. 2013;144(1):74-80;
Pohl et al. Ann Intern Med. 2021;174(10):1377-138

21

Virtual Grand Rounds universe.gi.org

ADR, WT and Interval CRC

- Community based practice in Minneapolis/St. Paul
- 51 GI
- 76,810 Screening colonoscopies over 6 years
- Linked records with State cancer registry for incident cancers within 5 years of colonoscopy
- Average annual ADRs: 26% ± 9%; WT: 8.6±1.7 min
- 56 interval cancers over 249,261 person-years of follow-up

Shaukat A et al. Longer withdrawal time is associated with a reduced incidence of interval cancer after screening colonoscopy. Gastroenterology. 2015 Oct;149(4):952-7

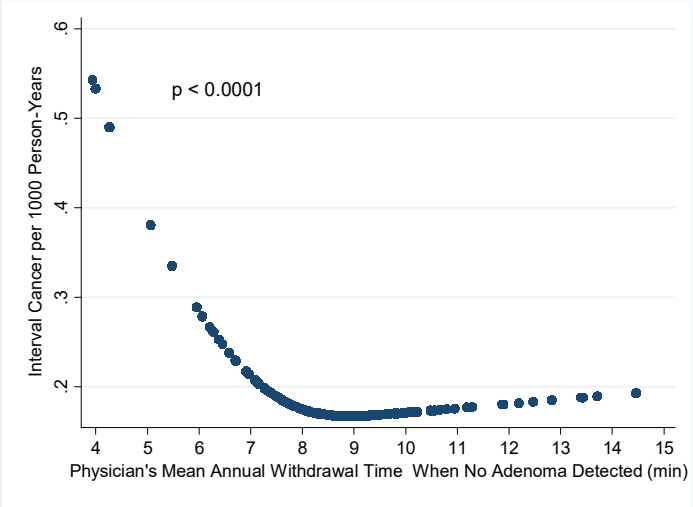
22

Virtual Grand Rounds

universe.gi.org

WT and Interval cancer

Physicians' average annual withdrawal times were inversely associated with interval cancers (p < 0.0001)



23

Virtual Grand Rounds

universe.gi.org

Adenoma detection rates by age groups:

- Multiple endoscopy centers in MN
- 223,572 average risk screening colonoscopies
- 99 Endoscopists
- 2014-2019

	45-49 year old n=4841	50-54 year old n=58,914	p-value (compared to 45-49)	50-75 year old N=159,817	p-value (compared to 45-49
Overall ADR	28.4% (27.1%, 29.6%)	31.1% (30.7%, 31.4%)	<0.001	35.6% (35.4%, 35.8%)	<0.001
ADR in men	34.8% (32.9, 36.8)	38.3% (37.7, 38.9)	<0.001	43.0% (42.6, 43.3)	<0.001
ADR in women	22.6% (21.0, 22.4)	24.4% (23.9, 24.9)	0.001	29.0% (28.7, 29.3)	<0.001
APC	0.44 (0.41, 0.46)	0.49 (0.48, 0.49)	<0.001	0.59 (0.58, 0.59)	<0.001
AN detection rate	3.28% (2.58, 3.97)	3.43% (3.23, 3.64)	0.68	3.5%, (3.3, 3.6)	0.56
CRC detected	3	32	0.91	110	0.81

Shaukat A et al. Adenoma detection Rates for 45-49-year-old screening population. Gastroenterology 2022;162:957-959

24

Virtual Grand Rounds

universe.gi.org

ADRs by age groups:

- Modelled the effect of proportion of 45-49 yr olds that constitute the total screening colonoscopy population

45-49 year old as proportion of total (%)	Overall ADR (%)
5%	35.2%
10%	34.9%
25%	33.8%
50%	32.0%
75%	30.1%

Shaukat A et al. Adenoma detection Rates for 45-49-year-old screening population. Gastroenterology 2022;162:957-959

25

Virtual Grand Rounds

universe.gi.org

ADRs by age groups:

- GIQuIC registry US
- 45-75 yr olds Screening Colonoscopy
- 2014-2020
- >2 million exams
- 814 Endoscopists

	45-49 years	50-54 years	50-75 years
Overall Mean (SD) ADR	28.63 (10.34)	31.87 (9.34)	36.32 (9.78)
Endoscopist n	814	814	814
Total procedures	47,213	1,014,193	2,759,326
Mean (SD) ADR in men	32.91 (10.74)	36.98 (9.96)	41.50 (9.89)
Endoscopist n	219	219	219
Total procedures	9,928	470,146	1,270,382
Mean (SD) ADR in women	22.84 (9.87)	25.57 (8.48)	30.10 (9.18)
Endoscopist n	321	321	321
Total procedures	16,372	529,084	1,477,418

Bilal M and Shaukat A et al. Adenoma detection Rates for 45-49-year-old screening population. Am J Gastroenterol. 2022 Feb 15. Epub ahead of print.

26

Virtual Grand Rounds universe.gi.org

What interventions improve Quality Indicators?

27

Virtual Grand Rounds universe.gi.org

Step 1

- **Measure Quality indicators**
- **Provide Report cards**
  - Individual physicians
  - Group average
  - Individuals deidentified
  - Individuals identified
  - Post them on the ASC wall
  - Publish online

Sample Report card

Endoscopist ID: 21314566	Time period: Q1 2021
Total number of colonoscopies performed	300
Total number of screening colonoscopies performed	100
Complete Colonoscopies (excluding cases due to poor prep)	295 (98%)
ADR (for screening colonoscopy)	31%
Withdrawal time (procedures where no polypectomy or biopsies performed)	8.2 min± 1.15 min
Number of Colonoscopies with inadequate bowel prep	5 (2%)

28

Virtual Grand Rounds

universe.gi.org

Measure and report

- Patients are encouraged to ask the endoscopist their ADR

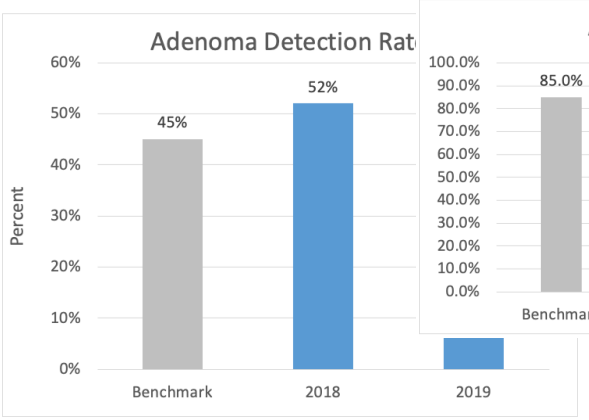
Rex DK et al. Colorectal Cancer Screening: Recommendations for Physicians and Patients from the U.S. Multi-Society Task Force on Colorectal Cancer. Am J Gastroenterol. 2017 Jul;112(7):1016-1030

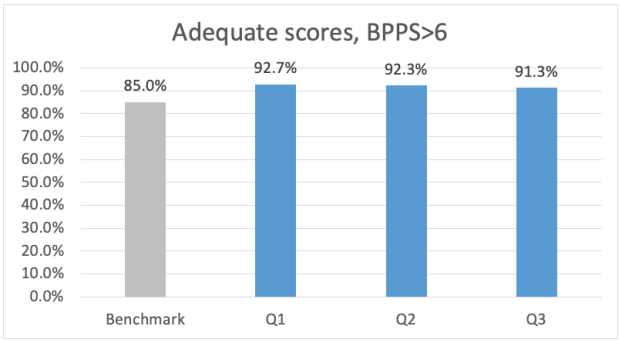
29

Virtual Grand Rounds

universe.gi.org

Public 'Report Cards'





30

Virtual Grand Rounds

universe.gi.org

Endoscopist report card

- 6 Endoscopists
- Quarterly report card on quality measures starting 2009
- Compared ADR and cecal intubation rate before and after intervention

	Before (95%CI)	After (95% CI)	P-value
ADR	44.7% (39.1%-50.4%)	53.9% (49.7%-58.1%)	0.013
Cecal intubation rate	95.6% (92.5%-97.5%)	98.1% (96.7%-99.0%)	0.027

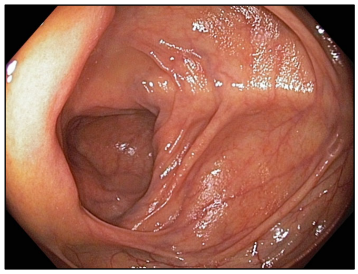
Kahi CJ et al. Impact of a quarterly report card on colonoscopy quality measures. GIE 2013 Jun;77(6):925-31.

31

Virtual Grand Rounds

universe.gi.org

Step 2. Improve Prep



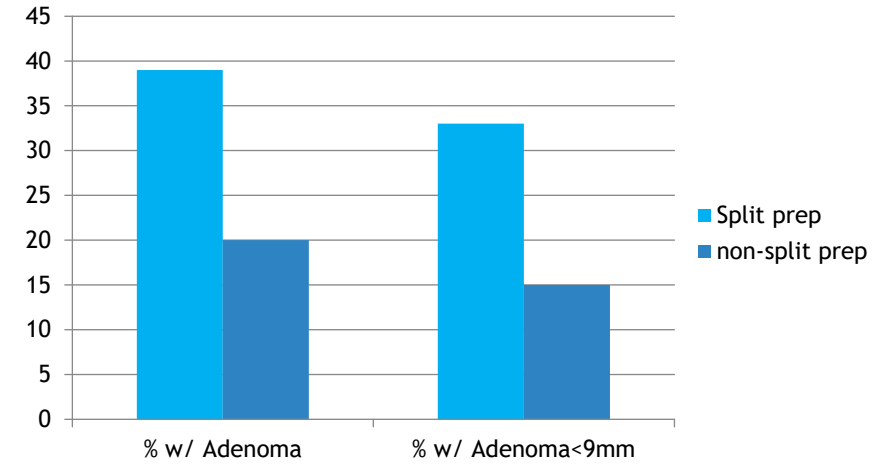
- Use split dose or same day prep
- Begin second dose 4-6 hours prior to colonoscopy
  - Finish prep at least 2 hours prior to colonoscopy
- Judge prep after all washing has been done
- Adequate prep should be achieved in at least 85% of cases
- If inadequate prep, repeat within 1 year

32

Virtual Grand Rounds

universe.gi.org

Split prep = Higher ADR



Cohen LB et al. Clinical trial: 2-L polyethylene glycol-based lavage solutions for colonoscopy preparation - a randomized, single-blind study of two formulations. Aliment Pharmacol Ther 2010;32:637-44

33

Virtual Grand Rounds

universe.gi.org

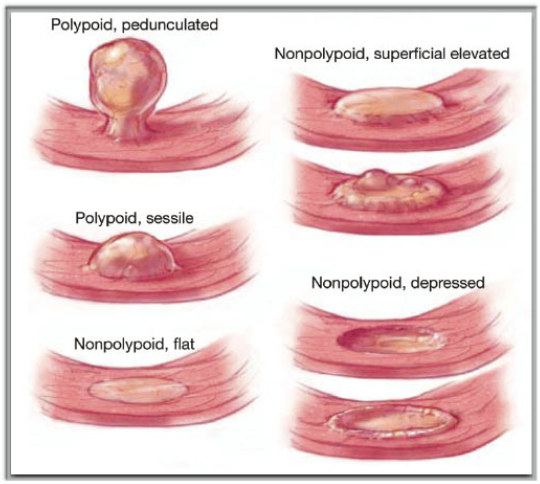
Step 3. Know what to look for and resect completely!

34

Virtual Grand Rounds

universe.gi.org

Polyp Recognition is important!



Soetikno, Kaltenbach, Rouse et al. JAMA 2008.

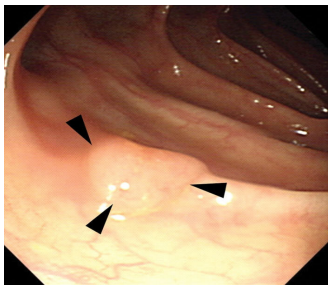
35

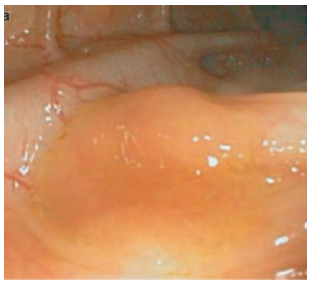
Virtual Grand Rounds

universe.gi.org

Polyp Recognition

- Endoscopic Features of easily missed polyps:
  - Right sided
  - Flat/sessile
  - Irregular borders
  - Covered by mucus





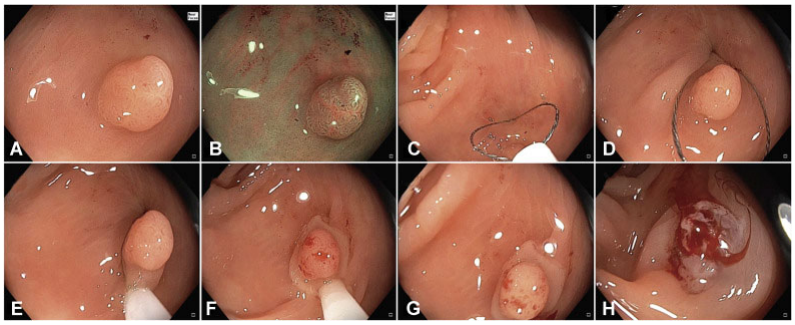
Huang CS. et al. AJG 2011;106:229-40

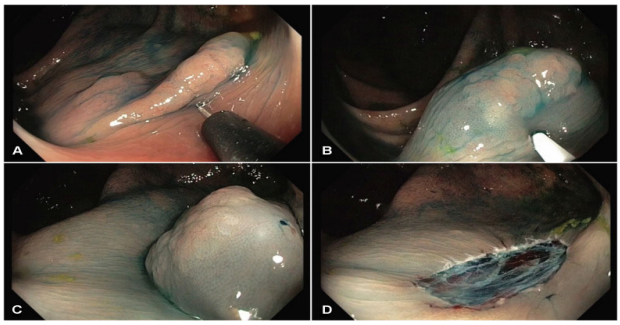
36

Virtual Grand Rounds

Complete Resection is imperative!

universe.gi.org





Shaukat A et al. Gastrointest Endosc. 2020 ;92(5):997-1015
Kaltenbach T, et al. Gastrointest Endosc 2020;91(3):486-519

37

Virtual Grand Rounds

universe.gi.org

Step 4. Think of interventions in the following categories:

Technique

Technology

Education

38

Virtual Grand Rounds

universe.gi.org

Technique: Withdrawal time

- Withdrawal time:
- Should be at least 6 minutes in colonoscopies without biopsy or polypectomy

- Withdrawal technique:
  - Adequate distention
  - Washing and clean up
  - Looking behind folds
  - Segmental inspection and subjective timing

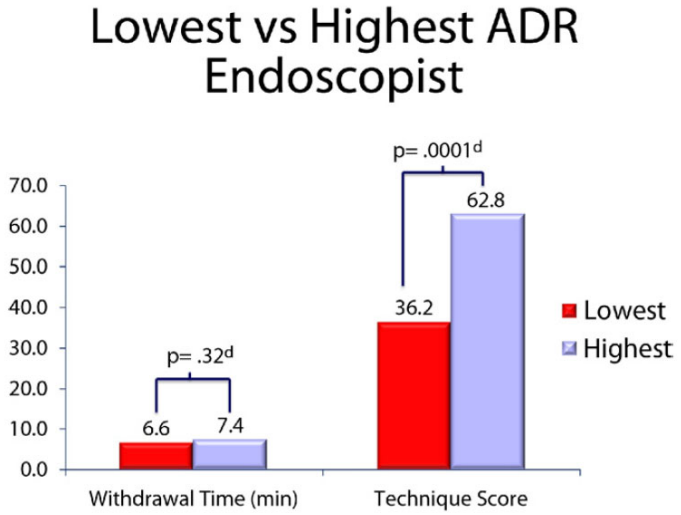
ASGE practice guideline: Measuring the Quality of Endoscopy. Gastrointest Endosc 2006;58:S1-S38
Rex DK. Colonoscopic Withdrawal technique is associated with adenoma miss rate. Gastrointest Endosc 2000;51:33-6

39

Virtual Grand Rounds

universe.gi.org

Time alone isn't enough: Technique matters



Lee GIE 2011;74:128-34

40

Other Techniques

- Retroflexion in the cecum versus re-examining right colon during withdrawal
- Left versus right lateral decubitus position during withdrawal
- Changing patient position during withdrawal
- 2nd observer looking at the screen (Tech or Nurse)
- Water immersion and water exchange

- **Mixed Results**
  - Seem to benefit low performers

Lee Sw et al. Am J Gastroenterol. 2016 Jan;111(1):63-9
Ball AJ et al. Gastrointest Endosc. 2015;82(3):488-94
Kushnir VM et al. Am J Gastroenterol 2015;110:415-22

41

Systemic interventions

42

Virtual Grand Rounds

universe.gi.org

Education interventions

"Endoscopic Quality Improvement Project" (EQUIP)

- 15 Endoscopist; half received training
- 2 Educational sessions (1-1.5 hrs each)
  - Techniques to improve detection
  - Techniques to distinguish adenoma vs hyperplastic
  - Videos of highest ADR doctors' pullback methods
- Monthly feedback on ADR and WD time
  - Results posted on ASC wall (de-identified)

	Phase I ADR (baseline)	Phase II ADR	Phase III ADR (5 mo later)
EQUIP	36%	**47%**	**46%**
Control	36%	35%	39%

Coe CG et al. Am J Gastroenterol. 2013;108:219-26
Ussui V et al. Am J Gastroenterol. 2015;110:489-96

43

Virtual Grand Rounds

universe.gi.org

Intervention: Train the Leader

- 40 Polish endoscopy centers with ADR <25% for the leader
- Randomized to
  - Feedback only (individual report cards)
  - Training: assessment, hands on training, post training feedback
- 24,582 colonoscopies by 38 leaders

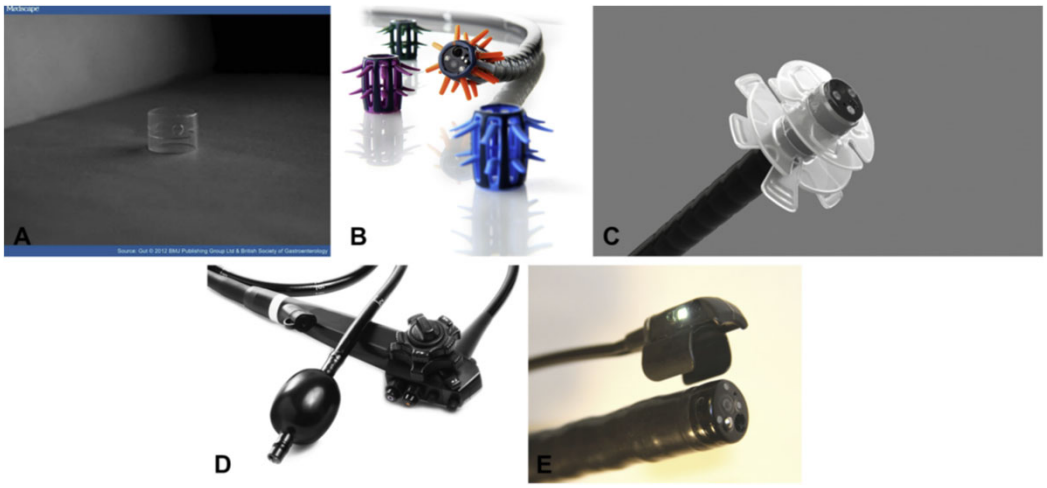
ADRs	Pre-intervention	Early post-intervention (6 mo)	Later post intervention (12 mo)
Feedback only	18.5%	19.6%	20.8%
Train the leader	17.4%	25.6%	23.9%

Kaminski et al. Leadership training to improve adenoma detection rate in screening colonoscopy: a randomised trial. Gut 2016;65:616-624

44

Virtual Grand Rounds universe.gi.org

Accessory Devices



ASGE. Endoscopes and devices to improve colon polyp detection. GIE 2015;81:1122-29

45

Virtual Grand Rounds universe.gi.org

Comparing technique, devices and endoscopes

	OR for ⬆ADR (vs. High def colonoscopy)	95% CI
Technique (WE, 2nd observer, position changes)	1.29	1.09-1.35
Enhanced imaging techniques (chromoendoscopy, narrow-band imaging, flexible spectral imaging color enhancement, blue laser imaging)	1.21	1.07-1.29
New scopes (full-spectrum endoscopy, extra-wide-angle-view colonoscopy, dual focus)	0.98	0.79-1.21

- No specific technology for increasing ADR was superior to others
- No difference in detection of advanced ADR, polyp detection rate, or mean number of adenomas/patient

Facciorusso A, et al. Compared Abilities of Endoscopic Techniques to Increase Colon Adenoma Detection Rates: A Network Meta-analysis. Clin Gastroenterol Hepatol. 2018 Dec pii: S1542-3565(18)31335-1. doi: 10.1016/j.cgh.2018.11.058

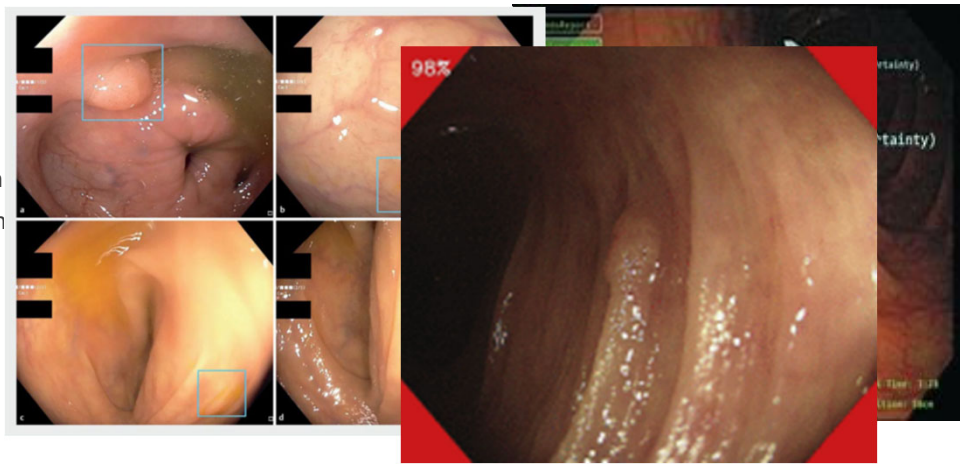
46

Virtual Grand Rounds

universe.gi.org

Emerging Technologies: AI for GI

- Polyp detection
- Histology prediction
- Prep quality
- Mucosa exposed/seen
- Adequate retroflexion



Misawa, Masashi et al. Artificial Intelligence-Assisted Polyp Detection for Colonoscopy: Initial Experience. Gastroenterology 2018;154:2027 – 2029
Mahmud N, et al. Computer vision and augmented reality in gastrointestinal endoscopy. Gastroenterol Rep. 2015 ;3:179-84.
Shaukat A et al. Improvement in adenoma detection using a novel artificial intelligence-aided polyp detection device. Endosc Int Open. 2021 Feb;9(2):E263-E270
Hassan C. et al. Performance of artificial intelligence in colonoscopy for adenoma and polyp detection: a systematic review and meta-analysis. Gastrointest Endosc. 2021 Jan;93(1):77-85

47

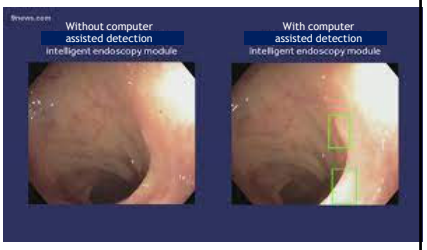
Virtual Grand Rounds

e.gi.org

AI-enabled program for CADe FDA approved

- 685 patients, 3 centers in Italy
- All indications
- Randomized to CADe vs standard COL
- ADR: 40.4% standard COL vs. 54.8% CADe
- Adenoma per Colonoscopy higher e CADe: 1.07 vs. 0.71
- No difference in WT, non-neoplastic rates

- Pooled two trials:
- 660 patients, 10 endoscopists
- Italy, all indications
- ADR 44.5% vs. 53.3%
- CADe, indication associated with ADR improvement, but not endoscopist experience



Repici A. Efficacy of Real-Time Computer-Aided Detection of Colorectal Neoplasia in a Randomized Trial. Gastroenterology. 2020 Aug;159(2):512-520.Repici A et al. Artificial intelligence and colonoscopy experience: lessons from two randomised trials. Gut. 2022 Apr;71(4):757-765.

48

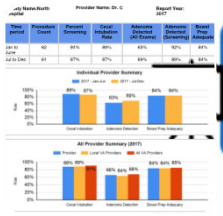
Virtual Grand Rounds

universe.gi.org

Multifaceted interventions are needed

Educational interventions

Technique



Report cards and feedback

High-quality colonoscopy

Technology

Video recording / feedback AI

May F and Shaukat A. State of the Science on Quality Indicators for Colonoscopy and How to Achieve Them. American Journal of Gastroenterology 2020; 115(8):1183-1190,

49

Interventions to improve adenoma detection rates for colonoscopy

universe.gi.org

Aasma Shaukat, MD, MPH,[1] Anne Tuskey, MD,[2] Vijaya L. Rao, MD,[3] Jason A. Dominitz, MD, MHS,[4] M. Hassan Murad, MD,[5] Rajesh N. Keswani, MD, MS,[6] Fateh Bazerbachi, MD,[7] Lukejohn W. Day, MD,[8] (ASGE Quality Assurance in Endoscopy Committee Chair)

GIE 2022;96:171-188

TABLE 1. Summary on interventions to improve ADR

Intervention	Compared with	Absolute increase in adenoma detection	Comments
Technique			
Water assistance	CO_2/air insufflation	6% water immersion 10% for water exchange	Water exchange increases insertion time but withdrawal time same as other techniques
Lengthening withdrawal time	<6 min	9% for 9-min WT compared with 6 min	Evidence supports emphasizing training in withdrawal technique rather than time
Retroflexion in cecum	No retroflexion	17% for right-sided adenomas	Overall success rate 91%, adverse vents .03%
Second look, either retroflexion in the cecum or second forward look in the proximal colon	Single forward look	10% for all adenomas, 5% for right-sided adenomas	Second forward look improves adenoma detection; no difference in retroflexed or straightforward second look
Dynamic change in patient position	No change in position	7%	Adequate distention during position changes is key, particularly with excellent preparation
Technology			
Distal attachment devices	Standard colonoscopy	5%-11%	May reduce procedure time
Enhanced imaging technology (narrow-band imaging, i-SCAN, linked-color imaging, blue-laser imaging, chromoendoscopy, and Methylene Blue-MMX (Cosmo Pharmaceuticals, Dublin, Ireland))	Standard or high definition white-light colonoscopy	5% to 18% absolute improvement in adenoma detection	Narrow-band imaging with 190 colonoscopes is superior to white-light colonoscopy
Computer aided detection technologies	Standard colonoscopy	10%-12% in adenoma, .2 in adenoma per colonoscopy	Added benefit of polyp histology recognition

50

Interventions to improve adenoma detection rates for colonoscopy

universe.gi.org

Aasma Shaukat, MD, MPH,[1] Anne Tuskey, MD,[2] Vijaya L. Rao, MD,[3] Jason A. Dominitz, MD, MHS,[4] M. Hassan Murad, MD,[5] Rajesh N. Keswani, MD, MS,[6] Fateh Bazerbachi, MD,[7] Lukejohn W. Day, MD,[8] (ASGE Quality Assurance in Endoscopy Committee Chair)

GIE 2022;96:171-188

Systematic interventions			
Split-dose bowel preparation	Day-before bowel preparation	26%	Also improvement in detection rates of advanced adenoma and sessile serrated lesions
Same-day bowel preparation	Split-dose bowel preparation	No improvement	
Video recording of colonoscopy	No recording	No improvement	Underpowered study, but may be of value in low performers
Nurse assigned to observe colonoscopy monitor	No observation	19%	
Education and feedback			
Physician report cards	No report cards	10%-15%	Benefit seen in low and high performers
Focused educational interventions	No education	29% for ADR, 39% for proximal ADR	Combination of education, teaching, video recording, and feedback
Financial incentives	No financial incentives	0%-3%	Amount of financial incentives studied did not matter
Public reporting of ADR	No public reporting	45% increase in ADR, 25% in advanced ADR	

51

Virtual Grand Rounds

universe.gi.org

Summary

- ADR, PDR, SSDR and IRR are important quality indicators
- Measure and track ADR
- ADRs for 45-49 lower than that for 50-55 and 50-75-year-olds (AR 3%-7%)
- Many available tools to improve Quality indicators

Shaukat A et al. Interventions to improve adenoma detection rates GIE 2022

52

Virtual Grand Rounds universe.gi.org

Thank you!

Aasma.Shaukat@nyulangone.org
@aasmashaukatmd

53

Virtual Grand Rounds universe.gi.org

Questions?

Aasma Shaukat, MD, MPH, FACG

Asmeen Bhatt, MD

54


CONNECT AND COLLABORATE IN GI
ACG & CCF IBD Circle
ACG Hepatology Circle
ACG Functional GI Health and Nutrition Circle
ACG GI Circle
Connect and collaborate within GI
ACG Women in GI Circle
ACG's Online Professional Networking Communities
LOGIN OR SIGN-UP NOW AT: acg-gi-circle.within3.com

55