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## 1-Day vs 3-Day Low Residue Diet for Colonoscopy Bowel Cleansing: A Systematic Review

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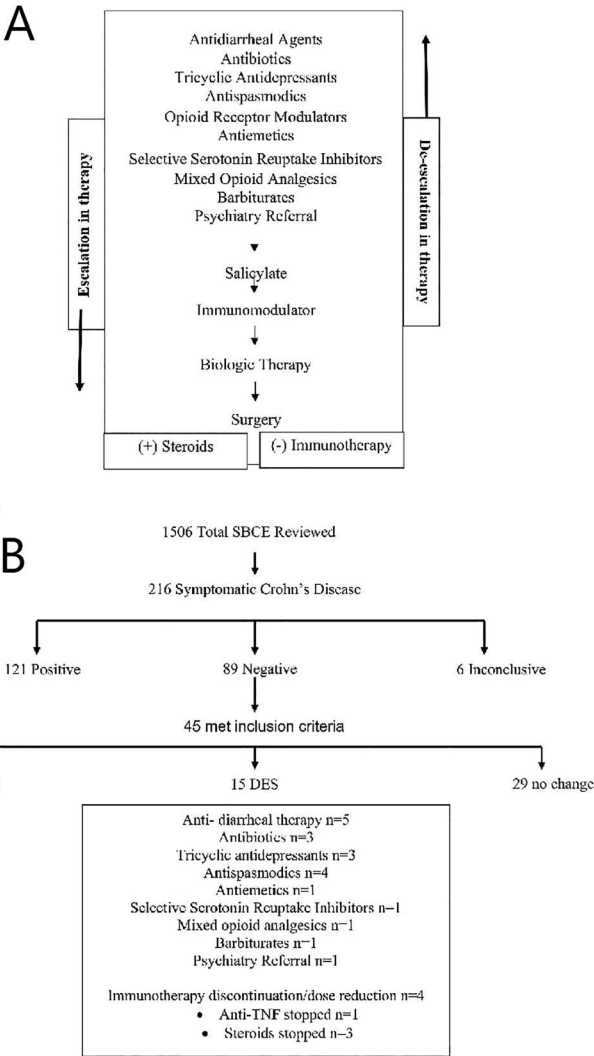
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[0589] **Figure 1.** A. Outline of therapies used for both escalation and de-escalation of Crohn's Disease. B. Study outline.

S590

**1-Day vs 3-Day Low Residue Diet for Colonoscopy Bowel Cleansing: A Systematic Review**  
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**Introduction:** Colonoscopy is the best method for colon cancer screening and to evaluate bowel abnormalities, including cancer. However, good bowel preparation is essential for a successful colonoscopy. Several studies have shown Low Residue Diet (LRD) to be better tolerated without any negative effects on bowel cleansing compared to Clear Liquid Diet. Several studies have compared 1-day vs. 3-day LRD for bowel cleansing. This study aims to compare the impact of the duration of LRD for colonoscopy bowel cleansing in adult patients.

**Methods:** We studied the Cochrane and MEDLINE/Ovid databases from inception to November 2020 with keywords "colonoscopy," "bowel preparation," "bowel cleansing," "1-day," and "3-day". Initially, 107 studies were identified, which were further screened with title and abstracts. Seven studies were selected for full-text review. Two studies were also excluded as one of them had included pediatric patients, and another was a post-doc analysis. Four studies were included in the final analysis.

**Results:** All studies were single-institution studies conducted in Spain (2), Portugal (1), and Turkey (1) on elective patients only. Patients with significant comorbidities were excluded from all 4 studies, with 2 specifically excluding inflammatory bowel disease patients and one excluding patients with a history of poor bowel preparation in the past. Two studies included only morning colonoscopies, one from 8AM-4PM, and one did not specify the timing. Experienced endoscopists performed the procedure in 3 studies. All studies showed that 1-day LRD was not inferior to 3-day LRD to achieve

[0590] **Table 1.** Study characteristics, outcomes and their limitations.

| Study/Year                       | Country  | Design                                       | Sample Size                                   | Procedure details  | Outcomes  | Limitations  |
|----------------------------------|----------|--|---|--|---|--|
| Antonio Z. Gimeno-Garcia<br>2019 | Spain    | Prospective, Randomized Single-Blind trial   | 404   | Elective Colonoscopies<br><br>Morning session only<br><br>Experienced endoscopists                       | 3-day LRD did not offer an advantage over 1-day LRD for bowel cleansing or polyp detection.   | Excluded patients with uncontrolled hypertension, heart failure, liver failure, ESRD, past history of inadequate bowel prep          |
| Taveira<br>2019                  | Portugal | Prospective Randomized Single-blind trial    | 412   | Elective colonoscopies<br><br>Morning session only<br><br>Experienced endoscopists (>10-year experience) | 3-day low fiber diet is not associated with added benefit compared to a 1-day diet for bowel preparation and significantly harder to perform    | Excluded patients with IBD and cirrhosis   |
| Digdem Ozer Etik<br>2019         | Turkey   | Prospective, Randomized Single blinded trial | 506 (251 received clear liquid diet, not LRD) | Elective colonoscopies<br><br>8AM-4PM  | 1-day CLD was non-inferior to a 3-day combined diet, including 2.5 days of LRD for bowel cleansing, polyp detection rate, and patient tolerance | Excluded patients with IBD, previous colon surgery, and severe complicated systemic diseases   |
| Machlab<br>2020                  | Spain    | Prospective Randomized controlled Trial      | 855   | Elective<br><br>Positive FIT test<br><br>Senior endoscopists   | 1-day LRD non-inferior to 3-day LRD to achieve adequate colon cleansing before average risk colonoscopy   | Included average risk elective only, did not specify other details or exclusions, only experienced endoscopists performed the scope. |

adequate bowel cleansing, polyp detections, adenoma detection, and cecal intubations. Patients reported tolerating the 1-day LRD significantly better in 2 studies, with the other 2 showing equivalence between the groups (Table 1).

**Conclusion:** 1-day LRD is not inferior to 3-day LRD for a select population of patients undergoing elective outpatient screening colonoscopies. However, there is no data to support or negate this finding in patients with significant comorbidities, specifically in patients with IBD who need serial screening colonoscopies. This group requires specific investigation in future studies.

S591

**Adherence to the SPIRIT-AI Standardized Reporting Guidelines in Artificial Intelligence Clinical Trials in Gastroenterology**  
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**Introduction:** In recent years there have been several published clinical trials evaluating the role of various aspects of artificial intelligence (AI) in gastroenterology. New guidance from the CONSORT (Consolidated Standards of Reporting Trials) and SPIRIT (Standard Protocol Items: Recommendations for Interventional Trials) Steering Group represents an important step towards standardizing the quality of AI trial reporting. However, all currently available clinical trials in gastroenterology were performed before these guidelines were developed. Therefore, we sought to evaluate the adherence to the SPIRIT-AI standardized reporting guidelines in AI clinical trials in gastroenterology.

**Methods:** Multiple databases were searched (from inception to June 2021) and clinical gastroenterology trials applying AI and machine learning (ML) were identified. Only prospective trials were included. The studies were evaluated to determine if they met each of the 13 core recommendations of the SPIRIT with AI extension guidelines. Each recommendation was given 1 point if they met criteria and 0 points if they did not. Proportion of adherence to the SPIRIT-AI recommendations was reported as percent value.

**Results:** A total of eight prospective clinical trials evaluating the role of AI/ML in gastroenterology were identified. Six of these focused on AI for colon polyp/adenoma detection, while one was pertaining to Barrett's esophagus and another evaluating blind spots during esophagogastroduodenoscopy. The adherence to the SPIRIT-AI extension ranged from 84.6% to 100%, with five of the studies scoring 100%. The mean was 95.62%. The most commonly missed recommendations out of the 13 included specifying the procedure for acquiring and