TITLE:  Best Practice for Management of Ulcerative Colitis and its Complications: Clinical Evidence and Guidelines

DATE:  14 June 2011

RESEARCH QUESTIONS

1. What is the clinical evidence on the treatment of ulcerative colitis and the complications of ulcerative colitis, including toxic megacolon?

2. What are the evidence-based guidelines for the treatment of ulcerative colitis and the complications of ulcerative colitis, including toxic megacolon?

KEY MESSAGE

The literature suggests that various pharmacological, medical or surgical treatment options may be effective for the treatment of ulcerative colitis and its complications.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2011, Issue 5), University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. Methodological filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, randomized controlled trials and guidelines. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between Jan 1, 2008 and Jun 2, 2011. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.
RESULTS

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by evidence-based guidelines.

Twelve systematic reviews and meta-analyses and three evidence-based guidelines were identified regarding the treatment of ulcerative colitis and the complications of ulcerative colitis, including toxic megacolon, were identified. No relevant health technology assessments were identified. Due to the large volume of relevant literature, systematic reviews included in the main body of the report were limited to those examining multiple drug therapies, or surgical or medical procedure options. Systematic reviews and meta-analyses looking at single drug treatments have been included in the appendix. Randomized controlled trials were limited to those regarding surgical or medical procedure options and those studies whose outcomes included the prevention of those interventions. Additional articles that may be of interest are also available in the appendix.

OVERALL SUMMARY OF FINDINGS

The results of 12 systematic reviews and meta-analyses examining drug therapies and surgical and medical procedure options are summarized in Table 1. Treatments that were deemed to be effective for UC included low molecular weight heparin colon-release tablets, glucocorticosteroids, antibiotics, immunosuppressive therapies, probiotics, aminosalicylates, selective leukocytapheresis, and granulocyte/monocyte adsorptive apheresis.

Table 1: Summary of Included Systematic Reviews and Meta-Analyses

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<thead>
<tr>
<th>Authors</th>
<th>Interventions</th>
<th>Conclusions</th>
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<tr>
<td>Drug therapies</td>
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<td>Chande et al.</td>
<td>UFH or LMWH for remission of UC</td>
<td>Subcutaneous LMWH showed no benefit over placebo for any outcome. High-dose LMWH extended colon-release tablet was beneficial over placebo for clinical remission, clinical improvement, and endoscopic improvement. The authors concluded the extended-release LMWH tablets may be effective for treatment of UC. No evidence was identified to support the use of UFH.</td>
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<td>Ford et al.</td>
<td>Glucocorticosteroids versus placebo for treatment of active UC</td>
<td>One trial showed standard glucocorticosteroids to be superior to placebo for remission. The authors conclude that this treatment is likely effective for inducing remission in UC.</td>
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<tr>
<td>Khan et al.</td>
<td>Antibiotic therapy for remission of UC</td>
<td>Antibiotics were found to be statistically significantly superior to placebo for induction of remission of UC. The included studies used different single or combination drugs. The authors conclude there is need for more study due to the varied antibiotics tested.</td>
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<td>Khan et al.</td>
<td>Immunosuppressive therapy for remission and prevention of relapse in UC</td>
<td>Azathioine showed a trend towards clinical benefit for active UC and resulted in a statistically significant benefit for preventing relapse in quiescent UC. Data on methotrexate and cyclosporine were limited.</td>
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<td>Sang et al.</td>
<td>Probiotics for remission and maintenance of UC</td>
<td>The authors determined probiotic treatment, including <em>Bifidobacterium bifidum</em>, was more effective than placebo for remission maintenance in UC.</td>
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<td>Gisbert et al.</td>
<td>Thiopurines (azathioprine and mercaptopurine) for remission of UC</td>
<td>Mean efficacy of the treatment was 65% for induction of remission and 76% for maintenance of remission. The authors concluded thiopurines were more effective than placebo for prevention of relapse of UC.</td>
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<td>Nikfar et al.</td>
<td>Sulfalazine versus 5-ASAs for improvement and remission maintenance in UC</td>
<td>Sulfalazine did not differ from 5-ASAs in respect to efficacy and tolerability in UC. The authors suggest sulfalazine as a first-line treatment and recommend the use of 5-ASAs when sulfalazine is not tolerated.</td>
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<tr>
<td>Rahimi et al.</td>
<td>5-ASAs (mesalazine versus balsalazide) for maintenance and remission in UC</td>
<td>5-ASAs are the standard treatment in mild-to-moderate UC. The authors concluded that balsalazide was more effective than mesalazine for remission, but it had no benefit over mesalazine for the prevention of relapse.</td>
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<td>Seow et al.</td>
<td>Type I IFNs for induction of remission in UC</td>
<td>There was no significant benefit for type I IFNs over placebo for the induction of remission of UC.</td>
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Surgical or medical procedure options

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<tr>
<td>Zhu et al.</td>
<td>Selective leukocyteapheresis for treatment of UC</td>
<td>Selective leukocyteapheresis as supplemental therapy was compared with conventional pharmacotherapy. The authors concluded leukopheresis supplementation provided a significant benefit to response and remission rates and significantly higher steroid-sparing rates.</td>
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<td>Thanaraj et al.</td>
<td>GMMA for UC</td>
<td>GMMA was compared with conventional medical therapy, sham procedures, or intensive GMAA. Remission rates with GMMA were generally higher than with conventional therapy and steroid-sparing effects were observed. Compared to sham procedures, GMMA did not achieve higher remission rates. Intensive GMAA regimens had higher remission rates. The authors concluded that GMMA may have some benefit for the treatment of UC.</td>
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<tr>
<td>Teeuwen et al.</td>
<td>Colectomy for severe acute UC</td>
<td>Studies were identified that described patients operated on in an acute setting. Over three decades, there was a shift in prevalence from toxic megacolon to severe acute colitis not responding to conservative treatment. Considerable morbidity was associated with colectomy.</td>
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ASA = aminosalicylates; GMMA = granulocyte/monocyte adsorptive apheresis; LMWH = low molecular weight heparin; IFNs = interferons; UC = ulcerative colitis; UFH = unfractionated heparin

Three evidence-based guidelines\(^{13-15}\) were identified regarding the treatment of ulcerative colitis. For the management of UC, the guidelines\(^{14,15}\) suggest dietary and lifestyle changes may help to reduce symptoms. Pharmacotherapy may include aminosalicylates (anti-inflammatory agents), corticosteroids, and immune modifiers such as antibiotics and probiotics. Surgical treatment options include temporary ileostomy, total proctocolectomy plus permanent ileostomy, and ileal pouch–anal anastomosis. For the management of toxic megacolon, one guideline\(^{15}\) recommends “all patients with severe acute colitis and signs of colonic distension should have daily abdominal radiographs to monitor for toxic megacolon, until there is clinical and radiological improvement or the decision has been made to perform a colectomy.”
Guidelines prepared by the American College of Gastroenterology and its Practice Parameters Committee were identified, however, no information relating to the content or recommendations were provided within the abstract.
REFERENCES SUMMARIZED

Health technology assessments
No literature identified.

Systematic reviews and meta-analyses

Drug therapies


Surgical or medical procedure options


Guidelines and recommendations


See: Findings and Recommendations, page 15
APPENDIX – FURTHER INFORMATION:

Systematic reviews and meta-analyses – single drug reviews

PubMed: PM21407188

PubMed: PM20186931

PubMed: PM20091560

PubMed: PM20927762

PubMed: PM19925496

PubMed: PM19160337

PubMed: PM19588435

PubMed: PM18646177

PubMed: PM18182473

PubMed: PM17932752
Randomized controlled trials


Review articles


Additional references

