

NSAIDs for heavy menstrual bleeding

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Clinical question

In premenopausal heavy menstrual bleeding without pathologic cause, do nonsteroidal anti-inflammatory drugs (NSAIDs) improve patient outcomes?

Bottom line

Based on low-quality evidence, NSAIDs reduce relative mean menstrual blood loss by about 30%, and about 20% to 50% fewer sanitary products are used than with placebo. Effects on bleeding duration are inconsistent.

Evidence

Evidence was focused on placebo-controlled RCTs. Menorrhagia, when defined, was more than 80 mL per cycle.

- Naproxen: In 2 crossover RCTs (N=4 each), baseline blood loss was about 140 mL. After 2 cycles of each treatment, mean blood loss decreased about 30% over placebo¹ and 79% felt naproxen was better than placebo.² There was no effect on bleeding duration.²
- Ibuprofen: In 1 crossover RCT (N=13),³ baseline blood loss was not stated. After 1 cycle of each treatment, mean blood loss decreased about 25% over placebo (1200 mg/d) and was not different from placebo (600 mg/d). There was no effect on bleeding duration.
- Mefenamic acid: Evidence was 5 RCTs.
 - The largest RCT (N=80) followed 3 consecutive cycles.⁴
 - “Relief” of menorrhagia (not defined): 86% versus 20%, number needed to treat (NNT)=2.
 - Pads per day: 15 at baseline, 7 with mefenamic acid (placebo not stated).
 - Bleeding days: 10 at baseline, 4 with mefenamic acid (placebo not stated).
 - In 3 RCTs (2 crossover; N=49), mefenamic acid was better than placebo.
 - Mean blood loss was about 10% to 40% lower than placebo.¹
 - “Responded” (undefined): 79% versus 18% (placebo), NNT=2.^{5,6}
 - In 1 crossover RCT (N=15), there was no difference in blood loss.⁷
- Mefenamic acid versus diclofenac: In 1 RCT of 68 women, only 1 completed all study follow-up.⁸
 - Median number of pads used (baseline unknown) was 21 versus 10 (diclofenac).
 - Number of bleeding days (baseline unknown) was 6 versus 4 (diclofenac).

- Naproxen versus mefenamic acid: In 1 crossover RCT (N=35),⁹ both groups improved similarly compared with baseline. Blood loss decreased by about 47%, there were 0.8 fewer days of bleeding, and tampon number decreased from about 31 to 24.

Context

- Blood loss does not correlate with patient experience.¹
- The NSAIDs were used just before and during menses.
- Mefenamic acid costs about \$20 per cycle; naproxen and ibuprofen are approximately \$4 each per cycle.¹

Implementation

The NSAIDs are well tolerated.⁶ Discontinuations due to adverse effects are similar between mefenamic acid and naproxen.⁹ The NSAIDs may be less effective in reducing menstrual blood loss than levonorgestrel intrauterine systems (LNG-IUS)¹⁰; guidelines recommend LNG-IUS over combined oral contraceptives, luteal-phase progestins, antifibrinolytics, and NSAIDs.¹¹ However, nonhormonal methods may be more appropriate for some patients, (eg, when contraception or hormonal treatments are not desired). Antifibrinolytics are another nonhormonal option. Based on 2 small RCTs, 87% of those taking tranexamic acid may “improve” compared with 61% taking NSAIDs.¹² 🌱

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Competing interests

None declared

The opinions expressed in Tools for Practice articles are those of the authors and do not necessarily mirror the perspective and policy of the Alberta College of Family Physicians.

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