Daily iron supplementation beneficial in menstruating women

Clinical Question
How effective is daily iron supplementation for anaemia, iron status, physical, psychological and neurocognitive health in menstruating women?

Bottom Line
Daily iron supplementation effectively reduced the prevalence of anaemia and iron deficiency, raised haemoglobin and iron stores, improved exercise performance and reduced symptomatic fatigue. These benefits came at the expense of increased gastrointestinal side effects such as constipation and abdominal pain. Evidence that iron supplementation improved cognitive performance in women was uncertain, as studies could not be meta-analysed and individual studies reported conflicting results. There was no evidence of difference in efficacy between different iron salts.

Caveat
There were no data on the effects of iron on mortality, or whether taking iron for at least five days a week was as effective. Doses of elemental iron varied from 1 mg of elemental iron to approximately 300 mg of elemental iron a day. Duration of iron supplementation also varied, ranging from one week to 24 weeks.

Context
Iron-deficiency anaemia is highly prevalent among menstruating women worldwide, although the prevalence is highest in lower-income settings. Iron-deficiency anaemia has been associated with a range of adverse health outcomes, which restitution of iron stores using iron supplementation has been considered likely to resolve.

Cochrane Systematic Review