**Introduction**
Codeine is a phenanthrene opioid derivative. It is listed in the 2004 WHO Model Formulary to be used for the short-term, symptomatic relief of acute diarrhoea in adults, and for mild to moderate pain in adults and children.\(^1\) This review considers its place only in the treatment of acute diarrhoea: its value as an analgesic is not being questioned.

**Product and Dosage**
Codeine phosphate is listed as a 30mg tablet. The dosage for the treatment of acute diarrhoea in adults is 30 mg, 3-4 times /daily.\(^2\)

**Evidence of value**
Codeine inhibits intestinal peristalsis so reducing stool frequency and relieving symptoms such as abdominal cramps. After being taken by mouth it is absorbed into the circulation and enters the central nervous system (CNS). Its unwanted effects, the majority of which are due to its CNS actions, include nausea, vomiting, drowsiness, respiratory depression and hypotension; in addition it has the potential to cause dependence.\(^1,2,3\)

The value of antimotility drugs in the treatment of acute diarrhoea (including traveller’s diarrhoea) is not clear. There have been no systematic reviews of the effects of codeine on the duration and severity of symptoms, nor of its unwanted effects in acute diarrhoea, although such a review is now being undertaken.\(^5\)

There is evidence that it can worsen conditions so causing toxic megacolon, prolonging fever (in shigellosis), and in children with Shiga toxin-producing E.coli, causing hemolytic-uraemic syndrome. It is contraindicated in patients with bloody, or suspected inflammatory, diarrhoea.\(^3,4\)

Acute diarrhoea is usually self limiting and treatment should be directed at fluid and electrolyte replacement.\(^1-13\) Among the anti-motility drugs marketed for the symptomatic relieve of diarrhoea, loperamide is the one drug recommended by the majority of sources\(^6-12\) at least for use in adults. Unlike codeine, loperamide does not penetrate the blood brain barrier.\(^3\)

**Recommendations**
Codeine phosphate has some efficacy as an antidiarrhoeal but its unwanted effects and dependence potential make it of questionable value. Treatment of acute diarrhoea should concentrate on fluid and electrolyte replacement. Codeine phosphate should be deleted from the WHO Model List of Essential Medicines for its use as a treatment of acute diarrhoea. WHO could consider the inclusion of loperamide for this indication in adults.

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(October  2004)
References
2. BNF n° 47, march 2004: Gastro-intestinal system
4. UpToDate (on line). Wanke CA. Travelers' diarrhea.
9. UpTo Date. Wanke CA. Approach to the patient with acute diarrhoea

Search Strategy
For this review, in addition to primary data, the following secondary/tertiary sources were accessed:
BNF, CDC guidelines, Clinical Evidence, Cochrane Library, DTB, Martindale, Prescrire, Prodigy, Up To Date,