**EVIDENCE FOR EFFICACY:** A number of in vitro and animal studies involving noni extracts have been conducted, but there has been very little research conducted under clinical trial conditions, and hence no Cochrane systematic review of trials of noni has been undertaken.

ADVERSE EFFECTS: Daily consumption of noni juice has led to hyperkalaemia in some patients on potassium-restricted diets. There have also been reported cases of clinically significant elevation in liver enzymes, including transaminases and lactate dehydrogenase, from daily noni juice, with return to normal once the noni was discontinued. However, recent in vitro tests suggest that a normal dose of noni fruit juice is unlikely to induce adverse liver effects.<sup>2</sup>

**DRUG INTERACTIONS:** There is some evidence that noni may interact with warfarin<sup>3</sup> and that it may have an angiotensin I converting enzyme (ACE) inhibiting effect.<sup>1</sup>

## **Key references**

- Pawlus AD, Kinghorn DA. Review of the ethnobotany, chemistry, biological activity and safety of the botanical dietary supplement Morinda citrifolia (noni). J Pharm Pharmacol. 2007 Dec;59(12):1587–609.
- West BJ, Su CX, Jensen CJ. Hepatotoxicity and subchronic toxicity tests of Morinda citrifolia (noni) fruit. J Toxicol Sci. 2009 Oct;34(5):581–5.
- Carr ME, Klotz J, Bergeron M. Coumadin resistance and the vitamin supplement 'Noni'. Am J Hematol. 2004 Sep;77(1):103.

## String of **PEARLS**

## **Practical Evidence About Real Life Situations**

**PEARLS** are succinct summaries of Cochrane Systematic Reviews for primary care practitioners—developed by Prof. Brian McAvoy for the Cochrane Primary Care Field (www.cochraneprimarycare. org), New Zealand Branch of the Australasian Cochrane Centre at the Department of General Practice and Primary Health Care, University of Auckland (www.auckland.ac.nz/uoa), funded by the New Zealand Guidelines Group (www.nzgg.org.nz) and published in NZ Doctor (www.nzdoctor.co.nz.).



Watch and wait is usually as effective as antibiotics in children over six months of age with acute otitis media

Antihistamines and/or decongestants are not recommended for children with otitis media with effusion

Grommets are effective for recurrent acute otitis media

Autoinflation for otitis media with effusion is helpful in the short-term

Topical treatments are better than systemic antibiotics for chronically discharging ears

Intranasal corticosteroids may improve nasal obstruction symptoms in children with adenoidal hypertrophy

Tonsillectomy or adeno-tonsillectomy are effective for chronic and recurrent acute tonsillitis

**DISCLAIMER:** PEARLS are for educational use only and are not meant to guide clinical activity, nor are they a clinical guideline.

