String of **PEARLS**

Practical Evidence About Real Life Situations

Smoking cessation

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.).

- Reduction and abrupt cessation equally effective for smokers wanting to quit
- Motivational interviewing may assist smokers to quit
- Mobile phone–based interventions effective in short-term for smoking cessation
- Bupropion effective for smoking cessation in schizophrenia
- Nicotine receptor partial agonists effective for smoking cessation
- Insufficient evidence for effectiveness of acupuncture for smoking cessation
- Insufficient evidence for hypnotherapy in smoking cessation

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

COCHRANE PRIMARY HEALTH CARE FIELD

THE UNIVERSITY OF AUCKLAND NEW ZEALAND
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Promoting Effective Health and Disability Services

Doctor

Low dose diuretics most effective first-line drug in hypertension

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THE PROBLEM: Hypertension is the bread and butter of primary care, both in New Zealand and internationally. Thiazide diuretics have been available since the 1960s. Intensive marketing of newer agents has convinced many colleagues that the newer medications are more effective and have fewer adverse effects. I have personally always found the antihypertensive medications with the fewest side effects are the low-dose diuretics. I am constantly frustrated with patients who cough on ACE inhibitors or get swollen ankles on calcium channel blockers yet rarely have problems with diuretics.

CLINICAL BOTTOM LINE: Low-dose thiazides (bendrofluazide <1.25 mg) are more effective than first-line high-dose thiazides (e.g. hydrochlorothiazide 50 mg or more) and first-line beta-blockers, in reducing mortality and morbidity (stroke, myocardial infarction and heart failure). Note that hydrochlorothiazide is not available here other than in combination medications. The diuretic with the most evidence is Chlorthalidone (hygroton)[1] which is available in New Zealand (funded). While 10 times the cost of bendrofluazide, a month's supply can be as low as $3 per month for 12.5 mg daily. Bendrofluazide would be about 30 cents per month.

	Success	Evidence	Harms
Thiazide diuretics for treating hypertension	NNT of about 20 to prevent a CVD event over 5 years for those with BPs >160/100 and NNT of 122 for 5 years for those with systolic BP 149–160	Cochrane review[2]	Hypotension Low sodium and potassium

NNT = numbers needed to treat

References

1. Allhat collaborative research group. Major cardiovascular events in hypertensive patients randomized to doxazosin vs chlorthalidone. JAMA 2000;283:1967-75.
2. Wright JM, Musini VM. First-line drugs for hypertension. Cochrane Database of Systematic Reviews 2009, Issue 3. Art. No.:CD001841. DOI: 10.1002/14651858.CD001841.pub2.

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