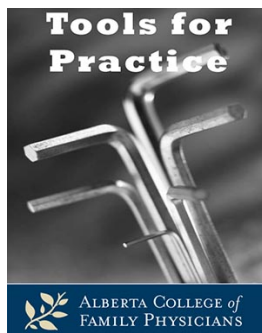


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Reviewed: May 25, 2015
Evidence Updated: Systematic review added
Bottom Line: unchanged
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Overactive bladder, urge incontinence and anticholinergic drugs

Clinical Question: In patients with overactive bladder (OAB), or urge incontinence, how well do medications work and are any of them better?

Bottom-line: Both anticholinergic drugs and placebo improve overactive bladder, although medications slightly more (about ½ a trip less to the bathroom/day). The drugs oxybutynin, tolterodine, solifenacin, and darifenacin are very similar in efficacy while adverse events (dry mouth and likely constipation) vary.

Evidence:

- Overactive bladder (OAB) responds well to placebo¹ but slightly more to anticholinergics.
 - Systematic review,² 61 trials, 11,956 patients, comparing anticholinergic drugs like oxybutynin (Ditropan®) and tolterodine (Detrol®) to placebo, statistically significant difference:
 - Patient reported cure or improve: 55.6% anticholinergic versus 41% placebo, Number Needed to Treat (NNT)=7.
 - Anti-cholinergic reduced leaks 0.58/day better than placebo.
 - Anti-cholinergic reduced micturitions 0.64/day better than placebo.
 - Dry mouth was more common with anticholinergic (30.9% versus 9.8%).
 - Withdrawal due to adverse events not different.
 - Recent systematic review found similar.³
 - Reviews comparing anticholinergic and other drugs:
 - Comparing anticholinergics (i.e. oxybutynin versus tolterodine):⁴
 - Oxybutynin: more dry mouth (Number Needed to Harm (NNH)=6) and withdrawal (NNH=20).
 - No difference in incontinence outcome.
 - Extended versus immediate release formulations offer no advantage except perhaps less dry mouth.⁴

- Reviews by the Canadian Expert Drug Advisory Committee found:
 - Darifenacin (Enablex®): No consistent difference to oxybutynin or tolterodine.⁵
 - Solifenacin (Vesicare®): Less dry mouth than oxybutynin and some inconsistent results compared to tolterodine, showing possible worsening constipation but small improvements in incontinence symptoms.⁶

Context:

- Guidelines recommend confirming if a urinary tract infection (and treating as necessary), caffeine reduction and weight reduction, supervised bladder training, and anti-cholinergic bladder medications as needed.⁷
- All anticholinergic treatments increase the risk of constipation:
 - Comparisons are limited but tolterodine appears to have the lowest risk.⁸

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