

Best medications to reduce drooling for those with developmental disability

September 17 2019



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A new study has revealed the most effective medications to reduce drooling in young people with a developmental disability, which can affect their socialization, relationships and community life.

The research, led by the Murdoch Children's Research Institute (MCRI),

found anticholinergic drugs benzhexol hydrochloride, glycopyrrolate, and scopolamine patches significantly reduced drooling.

But any improvement resulted in [adverse side effects](#) such as behavioral changes (restlessness, irritability, hyperactivity), dehydration, constipation, skin rash, fever and blurred vision.

MCRI's Dr. Sue Reid says the study found the [best treatment](#) for drooling was glycopyrrolate.

"Glycopyrrolate produced the greatest improvement in drooling with the fewest [side-effects](#) and discontinuations of treatment," she says.

"For those with severe motor impairment, often already on multiple medications, choosing a [medication](#) to help control drooling with fewer side-effects is imperative.

"The research aimed to provide clinicians with important information around choosing the best medication, including success rates and the impact of side-effects. It also looked at treatment compliance in a 'real world' clinical setting."

The study found that after one week on glycopyrrolate, 73 percent of carers rated the young person's drooling as improved.

But by the end of the study, 63 percent of participants had ceased taking glycopyrrolate and 77 percent reported at least one side effect.

Published in *Developmental Medicine and Child Neurology*, the research involved 110 participants from The Royal Children's Hospital Saliva Control Clinic.

Dr. Reid says medication side-effects were common in the study and

often led to treatment cessation.

"Almost all children attending the clinic have developmental disability, particularly cerebral palsy, intellectual disability and autism spectrum disorders," she says.

"They provided data for 52 weeks or until drug discontinuation on compliance, drooling, adverse effects, and reasons for cessation."

MCRI lead researcher Professor Dinah Reddihough says for many young people with [developmental disability](#), excessive drooling impacts socialization, relationships, and integration into school and community life.

"Loss of self-esteem and high personal care needs are often ongoing problems for the young person and their carers," she says. "Secretions may also damage books, clothing, and computer equipment and skin may become excoriated."

Prof Reddihough says despite drooling being a common problem for those with a disability, including about 22-40 percent of young people with [cerebral palsy](#), no current available treatment options are totally satisfactory.

"Behavioural and therapy approaches are not always successful," she says. "Medication may have undesirable side-effects. Intra-glandular injection of botulinum toxin only provides temporary improvement, and surgery may be traumatic and associated with a risk of long-term dental problems unless dental surveillance is optimal.

"Anticholinergic medication is one of the most frequently used treatments for drooling. These agents block the receptors that stimulate saliva production. But unwanted side-effects are often reported because

their action is not confined to the salivary glands."

More information: Susan M Reid et al. Anticholinergic medications for reducing drooling in children with developmental disability, *Developmental Medicine & Child Neurology* (2019). [DOI: 10.1111/dmcn.14350](https://doi.org/10.1111/dmcn.14350)

Provided by Murdoch Children's Research Institute

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