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So, will an electronic NRMC solve medication errors?

Older people in aged care homes are more vulnerable to medication harm as they are frailer and take more medicines than other Australians. The Government spends more than $1.2bn every year treating people who have been harmed by their medicines, including 400,000 GP visits and 70,000 hospital admissions. 56% of these errors are due to prescribing errors.

Research from other countries has shown that implementing an electronic prescribing system in community GP practices reduces medication errors by as much as 85%. The main reason for this is increased prescription legibility. It was true the doctors spent an extra six minutes a day writing electronic prescriptions, but this was more than offset by less time “toing and froing” between the doctor and the pharmacist to clarify information and resolving issues.

Will the Doctor be a willing e-Prescriber?

While e-prescribing has many benefits, the fear is that not all doctors will be as excited as we are by the concept. Webstercare has recently visited many GP clinics where we talked about e-Prescribing. The doctors could not have been more willing to take part. The only barrier now is legislation. We wait with baited breath…
**GERIATRIC DYSPHAGIA**

Dysphagia is the medical term for swallowing difficulties. Swallowing changes in older people are normal and usually asymptomatic but, if ignored, can reduce quality of life and result in malnutrition, aspiration and death. Many older people have difficulty swallowing tablets and capsules and inappropriate alteration of medicines may lead to toxicity and reduced efficacy.

## Swallowing in older people

Swallowing changes include:
- Slowing of swallowing pressure rise;
- Increased presence of residue after swallowing;
- Reduced maximum tongue pressure;
- Various forms of oesophageal dysmotility; and
- Slowing of oesophageal transit time.

### Assessment

People, particularly with cognitive impairment, may be unaware they have dysphagia and may refuse to take medications. The ability to swallow may vary during the day and inability or refusal to swallow medications may vary from day to day.

Dysphagia is classified into two categories: oropharyngeal dysphagia and oesophageal dysmotility.

Signs of oropharyngeal dysphagia include difficulty controlling food or saliva in the mouth, initiating a swallow, choking, frequent pneumonia, unexplained weight loss, and a gurgly or wet voice after swallowing.

Oesophageal dysphagia is the inability to swallow solid food or medications described as “becoming stuck” in the throat.

Swallowing difficulty is managed by diet modification, therapy and surgery.

### Polypharmacy

Some medicines can induce or aggravate dysphagia by:
- A reduction in the amount or increase in viscosity of saliva; and
- Impairment of centrally-acting mechanism of swallowing.

### Diuretics and anticholinergics often change the composition of saliva.

Medicines with anticholinergic effects include:
- Tricyclic antidepressants (amitriptyline, nortriptyline, doxepin, imipramine, dosulepin);
- Tetracyclic antidepressants (mianserin);
- Antiparkinsonian agents (eg. benztrapine, trihexyphenidyl);
- Inhaled anticholinergics (ipratropium, tiotropium, umeclidinium, aclidinium, glycopyrronium);
- Antipsychotics (olanzapine, chlorpromazine, clozapine, pericazine);
- Anticholinergics for overactive bladder (solifenacin, darifenacin, oxybutynin, tolterodine, propantheline);
- Cough and cold products (dexchlorpheniramine, diphenhydramine, chlorpheniramine);
- Antihistamines (pheniramine, promethazine);
- Antidiarrhoicals (atropine); and
- Spasmolytics (hyoscine butylbromide, hyoscynamine).

### Medication review

Pharmacists can collaborate with prescribers and nursing staff to consider the appropriateness of medicines and advise on alternate dosage forms and medicines. A Residential Medication Management Reviews (RMMRs) should be requested.

Procedures endorsed by Medication Advisory Committees (MACs) to allow the alteration of tablets and capsules for administration should be followed. The AMH Aged Care Companion recommends annotation of medication charts. The reference ‘Don’t Rush to Crush’ is an excellent resource, also available in eMIMSCloud. All medicines should be administered with sufficient fluid to avoid oesophageal irritation. Adding crushed medicines to food should be avoided, as the entire meal may not be eaten.

Medicines may be ceased or changed to an oral liquid, if available, for oral or enteral use (suspension, syrup, drops, injection). Some tablets and granules in capsules can be dispersed in water. Other routes may be used (eg. rectal, topical, transdermal or parenteral). An oral medication lubricant (eg. Gloup, a thick, slippery gel) makes medicines easier to swallow and allowing medicines to be swallowed whole. Mixing of medicines with yoghurt, jam, honey, fruit puree or thickened fluids can impact the absorption, drug interactions and side effects of a medicine.

### Altered dosage forms

Inappropriate crushing of controlled or sustained release tablets increases risk of harm and toxicity. Delayed release formulations usually contain the initials EN or EC in the name. A tablet may have an enteric coating, or a capsule may contain enteric-coated beads or pellets. Enteric coating does not dissolve in the acidic environment of the stomach, instead dissolving in the small intestine and allowing the medicine to be absorbed further down in the gastrointestinal tract. Enteric coatings are used to either protect unstable medicine from stomach acid or protect the person’s stomach from irritation.

Extended-release formulations often have words or letters in their name such as: Contin, Slow Release, Slow, Duro, Mono, ER, SR, LA, SA, XR, MR, CD, XL, CR or HBS. Medicine is released over a prolonged time resulting in consistent blood levels and less frequent dosing. Crushing, chewing or dissolving an extended-release formulation releases the full dose at a much faster rate, increasing the risk of side effects and toxicity.

Some medicines may irritate the oesophagus or stomach, including aspirin, alendronate (Fosamax) and risedronate (Actonel) or have an unpleasant taste e.g. Coloxyl with Senna.

### Summary

All residents in aged care facilities should be screened for potential dysphagia. Difficulty swallowing medicines is an opportunity for a comprehensive medication review and, where appropriate, deprescribing. Oral liquids and dispersible tablets are usually best for people with swallowing problems. There are many medications that cannot be crushed or chewed, so pharmacists and/or drug information resources should be consulted before any alteration in dosage form.

STAFF PROFILE

MEET VIVIANNE BUI

What’s your role at Webstercare?
I am the Implementation Services Manager and I’ve had 12 years’ experience working with Aged Care Pharmacies. A key to my role is to ensure all projects and solutions are delivered consistently and efficiently.

My role also covers the implementation and support of aged care Webstercare solutions; MedSig, MedsComm, MedsPro, the RxMedChart and various Webstercare systems.

No two days are ever the same!

What’s the best thing about your role?
I work alongside an amazing team and we love solving problems. We work well together to achieve a common goal – solving our customer’s issues.

What’s the most common questions you receive from Webstercare customers and how do you respond?
What’s new? We are always updating our current solutions based on the needs of our customers.

E.g.: we will be launching a new update for MedSig electronic signing which includes these exciting new features:
- Dual signing for high risk medications such as insulin and S8 medications
- Pain management recording
- Biometric patch location recording and reporting

What inspires or excites you outside of work?
I have a two-year-old son, so any spare moment is spent with my family. I am also a freelance hair and makeup artist which I enjoy every now and then.
Upcoming Events

We look forward to seeing you at the following conferences coming up soon:

**LASA National**
28th – 30th October
Adelaide Convention Centre, SA
Stand 115 & Pod 5

**ANZFP**
18th – 20th November
Hotel Grand Chancellor
Hobart – TAS
Stand 5

**ITAC**
21st – 22nd November
Adelaide Convention Centre, SA
Pod 10

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WISDOM WITS

“When nothing is sure, everything is possible.”

My wife bought me a book on feng shui. I’d like to read it but she keeps moving it.

“We should all exchange problems. Everyone knows how to solve everybody else’s.”

Some mistakes are too much fun to only make once.

“You’re never too old to learn something stupid.”