Using telehealth to enable collaboration of pharmacists and geriatricians in residential medication management reviews

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Background

- Aged care residents, particularly those with dementia, are at risk of potentially inappropriate prescribing and adverse outcomes relating to medication use.
- Medication reviews are important interventions for optimising prescribing.

Residential Medication Management Reviews (RMMRs)

- Residential care
- Comprehensive geriatric assessment (CGA)
Background

- Ideally, specialists’ input should be synchronised to ensure the best results

- Current situation:
  - Lack of onsite expertise
  - Professional groups that work separately

- Telehealth can offer a solution
Aim

To test a telehealth platform to enable collaboration of pharmacists and geriatricians in RMMR process

To assess the potential value-adding of a joint approach to the process
Proposed model

- Admission to RACF
- GP assessment
- Complex issues / polypharmacy
- Geriatrician & pharmacist review request
- Structured nurse assessment
- Online pharmacist medication review
- Geriatrician review by video-conference
- Recommendations to GP and RACF
Testing the model

- **The study protocol**

- **A refined version of RES-e-CARE**
Methods

✓ Report
✓ For each medication:
  ➢ No change
  ➢ Stop
  ➢ Increase dose
  ➢ Decrease dose
  ➢ Decrease with view to stop
✓ Any new medications
Methods

- CGA assessment
- For each medication:
  - Confirm/change original medication decision?
    - No change
    - Increase dose
    - Decrease dose
    - Decrease with view to stop
- Any new medications

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Outcome measures

• From pharmacists’ reviews
  ✓ The level of agreement among pharmacists
  ✓ Perceptions of online platform compared to usual practice

• From geriatricians’ reviews
  ✓ The level of agreement among geriatricians
  ✓ Whether they changed their original decisions after viewing the pharmacist review
  ✓ Whether they found pharmacists’ reviews helpful
Results

- 297 medications
  ✓ Average 15 medications
Pharmacists’ and Geriatricians’ recommendations for medications

**Pharmacists**

- No change: 80%
- Decrease: 2%
- Stop: 9%
- Decrease with view to stop: 6%
- Not reported: 1%
- Increase: 2%

**Geriatricians**

- No change: 74%
- Decrease: 3%
- Stop: 12%
- Decrease with view to stop: 9%
- Not reported: 1%
- Increase: 1%

Total of 1485 recommendations

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Agreement among pharmacists and among geriatricians

**Two pharmacists**
- Percent agreement: 78%
- Chance agreement: 68%
- $kappa$: 0.30

**Two geriatricians**
- Percent agreement: 74%
- Chance agreement: 61%
- $kappa$: 0.31
Geriatricians changing mind after viewing pharmacists’ reports

Baseline agreement between pharmacists’ and geriatricians’ recommendations for medications (from 1485 occasions)

<table>
<thead>
<tr>
<th>Change Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase</td>
<td>4</td>
</tr>
<tr>
<td>No change</td>
<td>955</td>
</tr>
<tr>
<td>Decrease</td>
<td>7</td>
</tr>
<tr>
<td>Decrease with view to stop</td>
<td>39</td>
</tr>
<tr>
<td>Stop</td>
<td>35</td>
</tr>
</tbody>
</table>

Geriatricians changed their mind in 51 occasions
## Qualitative feedback on process

<table>
<thead>
<tr>
<th>Geriatricians</th>
<th>Pharmacists</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ in 72% of cases geriatricians felt the pharmacists report was helpful</td>
<td>✓ 4/5 pharmacists would be prepared to use this system as part of routine practice</td>
</tr>
<tr>
<td>✓ Helped confirm 1 or more original recommendations</td>
<td>✓ Access to more information</td>
</tr>
<tr>
<td>✓ Prompted more thought/change of original recommendations</td>
<td>✓ All information in one place</td>
</tr>
<tr>
<td>✓ Would be worthwhile to discuss together</td>
<td>✓ Saves time and expenses of travelling</td>
</tr>
<tr>
<td>X Not being able to talk with staff or observe resident</td>
<td>X Technical issues with learning to navigate the platform would be overcome with practice</td>
</tr>
<tr>
<td>X Technical issues with learning to navigate the platform would be overcome</td>
<td></td>
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Conclusion

✓ Among pharmacists and geriatricians, discrepancies in opinion exist

✓ Overall, geriatricians held a positive opinion toward having the pharmacist report available

✓ Pharmacists saw gains in efficiency in using telehealth platform
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