Use of Anti-Psychotic Agents in Irish Long Term Care Residents with Dementia

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Background

- Antipsychotics are used in the treatment of behavioral and psychological symptoms of dementia despite limited evidence.

- Long-standing evidence of increased risk of cerebrovascular events and mortality among people with dementia prescribed antipsychotic therapy (Schneider *et al*, JAMA 2005).

- Recent Irish data (Walsh *et al,* 2016),
  - 14% hospitalised patients with dementia prescribed an antipsychotic
  - Patients with dementia 4x more likely to be prescribed antipsychotic than those w/o dementia.

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Aims

1. To estimate the prevalence of antipsychotic prescription among elderly residents in Irish long term care facilities.

2. To establish the clinical factors associated with antipsychotic prescription among the total population and among patients with dementia in this setting.

Methods

- Retrospective, observational, cohort study.
- Residents in 14 long term care facilities in Cork region.
- Data collection:
  - From residents' medical files
  - Performed by single individual in 2009/10.
  - Includes demographics, medications, diagnoses.
- Inclusion criteria: All residents ≥65 years.
- Exclusion criteria:
  - Diagnosis of schizophrenia, bipolar affective disorder.

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Methods

- Dementia was identified by record of:
  - Dementia
  - Alzheimer's disease
  - Cognitive impairment
- Antipsychotic prescription defined as:
  - Regular prescription
  - Excluded prescription of prochlorperazine
- Comparisons by t-test (continuous data) and χ^2 test (categorical).
- Cox regression analysis
  - To estimate multivariable associates of antipsychotic prescription.

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Total Population

Characteristic	Total population N = 695
Age (years)	83.9 ± 7.8
Male	218 (29.8%)
Co-morbidities	
Number of medical conditions	10.5 ± 4.0
Dementia	360 (51.8%)
Medications	
Number of medications prescribed	11.3 ± 3.7
Dementia Pharmacotherapy	57 (8.2%)
Antipsychotic agent (regular)	177 (25.5%)
Antipsychotic agent (as required)	48 (6.9%)
Antidepressant	302 (43.5%)
Benzodiazepine (regular)	202 (29.1%)

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Total population

Characteristic	Residents with Dementia, n = 360	Residents without dementia, n = 335
Age (years) *	**84.9 ± 7.1**	**83.6 ± 8.2**
Male	96 (26.7%)	111 (33.1%)
Antipsychotic, regular *	**112 (31.1%)**	**65 (19.4%)**
Antipsychotic, as required	29 (8.1%)	19 (5.7%)
Antidepressant *	**141 (39.2%)**	**161 (48.1%)**
Benzodiazepine, regular	106 (29.4%)	96 (28.7)
Number of medicines prescribed *	**11.8 ± 3.9**	**10.8 ± 3.5**
Number of medical conditions	10.2 ± 4.0	10.9 ± 4.0

* Indicates p-value <0.05 for comparison between residents with dementia and those without dementia.

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Residents with dementia

Characteristic	Dementia and Antipsychotic, n= 112	Dementia and No Antipsychotic, n= 248
Age (years) *	**83.5 ± 7.2**	**85.5 ± 7.0**
Male	37 (33.0%)	59 (23.8%)
Antipsychotic, as required *	**20 (18.1%)**	**9 (3.6%)**
Antidepressant	51 (45.5%)	90 (36.3%)
Benzodiazepine, regular *	**44 (39.6%)**	**62 (24.9%)**
Number of medicines prescribed *	**11.6 ± 3.2**	**10.4 ± 3.6**
Number of medical conditions	11.1 ± 4.2	10.7 ± 3.9

* Indicates p-value <0.05 for comparison between residents with dementia and those without dementia.

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Antipsychotic agents prescribed

- Regular antipsychotic prescribed to 177 residents
- Second antipsychotic prescribed to 7 residents
- Atypical antipsychotics prescribed more among residents with dementia (86.2%) and residents without dementia (95.6%).
- Quetiapine accounted for 57.6% of all antipsychotics prescribed
- Followed by:
  - Olanzapine (16.8%)
  - Risperidone (9.8%)
  - Haloperidol (8.7%)

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Associates of antipsychotic use

Characteristic	Multivariable associates of prescription of antipsychotic in total population (Odds ratio, 95% Confidence Interval)
Age	0.98 (0.96 – 1.00)
Male sex	1.11 (0.73 – 1.63)
Dementia	1.94 (1.35 – 2.79)
Antidepressant	1.26 (0.87 – 1.82)
Benzodiazepine, regular	1.92 (1.31 – 2.81)
Number of medicines prescribed	1.05 (0.99 – 1.11)

Among residents with dementia associates of antipsychotic use were:

1. Regular benzodiazepine (OR = 1.70, 95% CI 1.02 – 2.81) and
2. Number of medicines prescribed (OR = 1.08, 95% CI 1.01 – 1.15)

Study limitations

- Retrospective
- Single time-point data
- Absence of outcome data

Conclusion

- This retrospective study shows that elderly residents in long term care have a high rate of antipsychotic prescription.
- Residents with Dementia and prescribed antipsychotic are younger, have greater polypharmacy and greater use of other psychotropic agents.
- Results highlight long term care residents at greatest risk of antipsychotic use.