

Prevalence, symptoms and outcomes of delirium associated with inpatient Parkinson's disease

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1 Introduction

- Parkinson's disease (PD) is a complex neurodegenerative disease with a wide range of motor and non-motor symptoms which affects 6.1 million individuals globally. ^(1,2)
- Delirium is the acute onset of disturbance in attention, awareness and consciousness with a fluctuating course. ⁽³⁾
- PD patients have a higher risk of developing delirium. Delirium in PD inpatients (DIPDI) is often associated with adverse outcomes and might increase the risk of dementia and death. ⁽¹⁾
- Delirium may be missed due to overlapping symptoms with PD such as anxiety, hallucinations, delusions, sleep wake disturbance and fluctuating attention. ⁽¹⁾
- This may cause delirium to be poorly recognised, underdiagnosed and undertreated as there is no evidence base as to which assessments should be used in PD. ⁽¹⁾

2 Aims

- To determine which assessments or tests are impaired in DIPDI.
- To classify symptoms associated with delirium including hallucinations, delusions, confusion and sleep disturbance as well as determine their prevalence in DIPDI.
- To determine the prevalence of adverse outcomes associated with DIPDI, including length of stay in hospital, falls and change in package of care.

3 Method

Invitation letter sent out to PD patients

Set up electronic notification system

Recruitment period (4 months)

- Consented PD inpatients being assessed only once for delirium

Inclusion criteria
•Diagnosis of PD according to UK brain bank criteria made by a movement disorder specialist

Exclusion criteria
•Non-idiopathic PD
•Patient was near death
•Lacked capacity to give informed consent
•No appropriate consultee available
•Insufficient English to complete assessments

53 cases (35 male & 18 female) have been assessed

4 Results

Aim 1

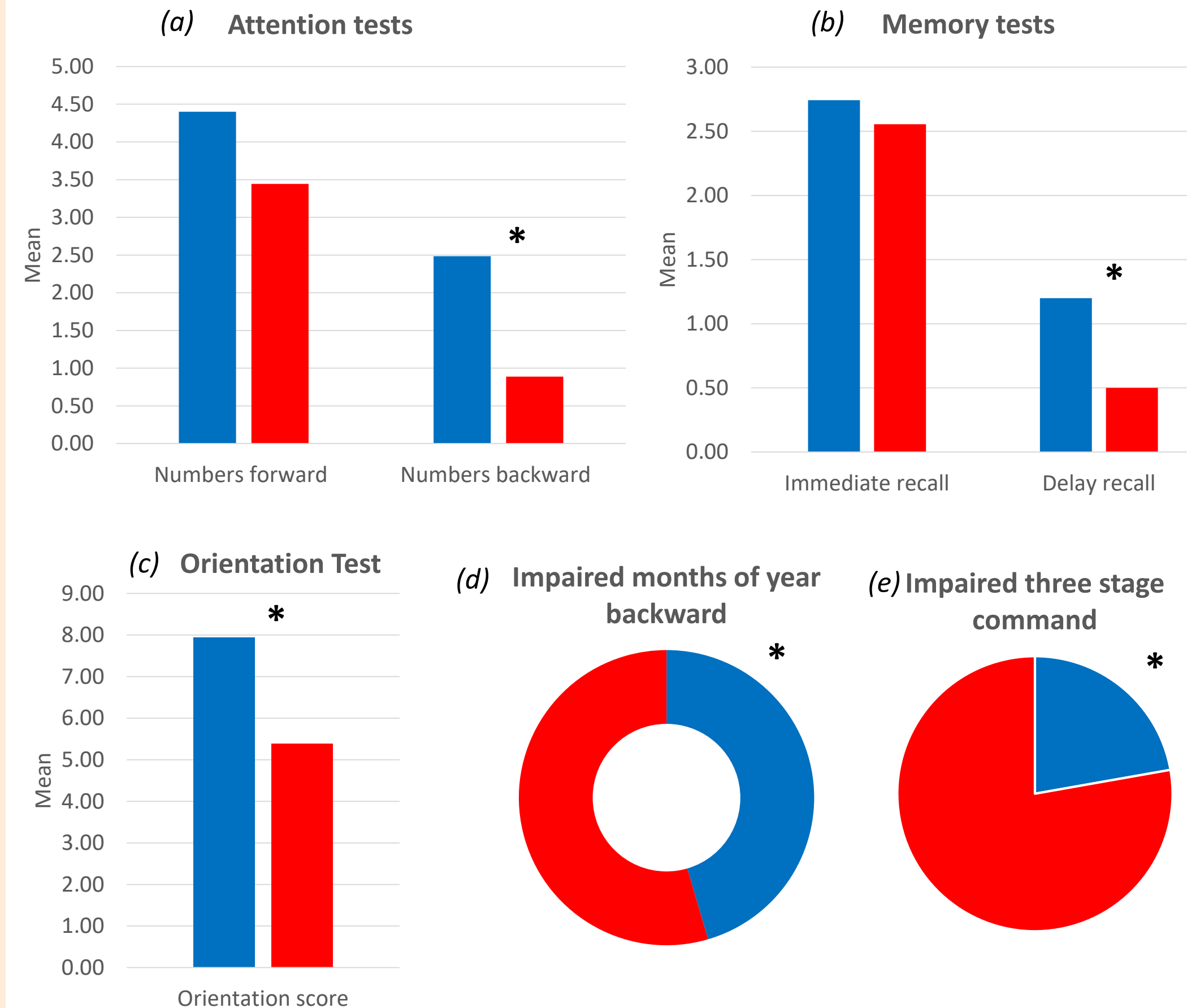


Figure 1: Tests used to assess DIPDI. (a)Attention tests. (b)Memory tests. (c)Orientation test. (d)Impaired months of year backward. (e)Impaired three stage command.

Aim 2

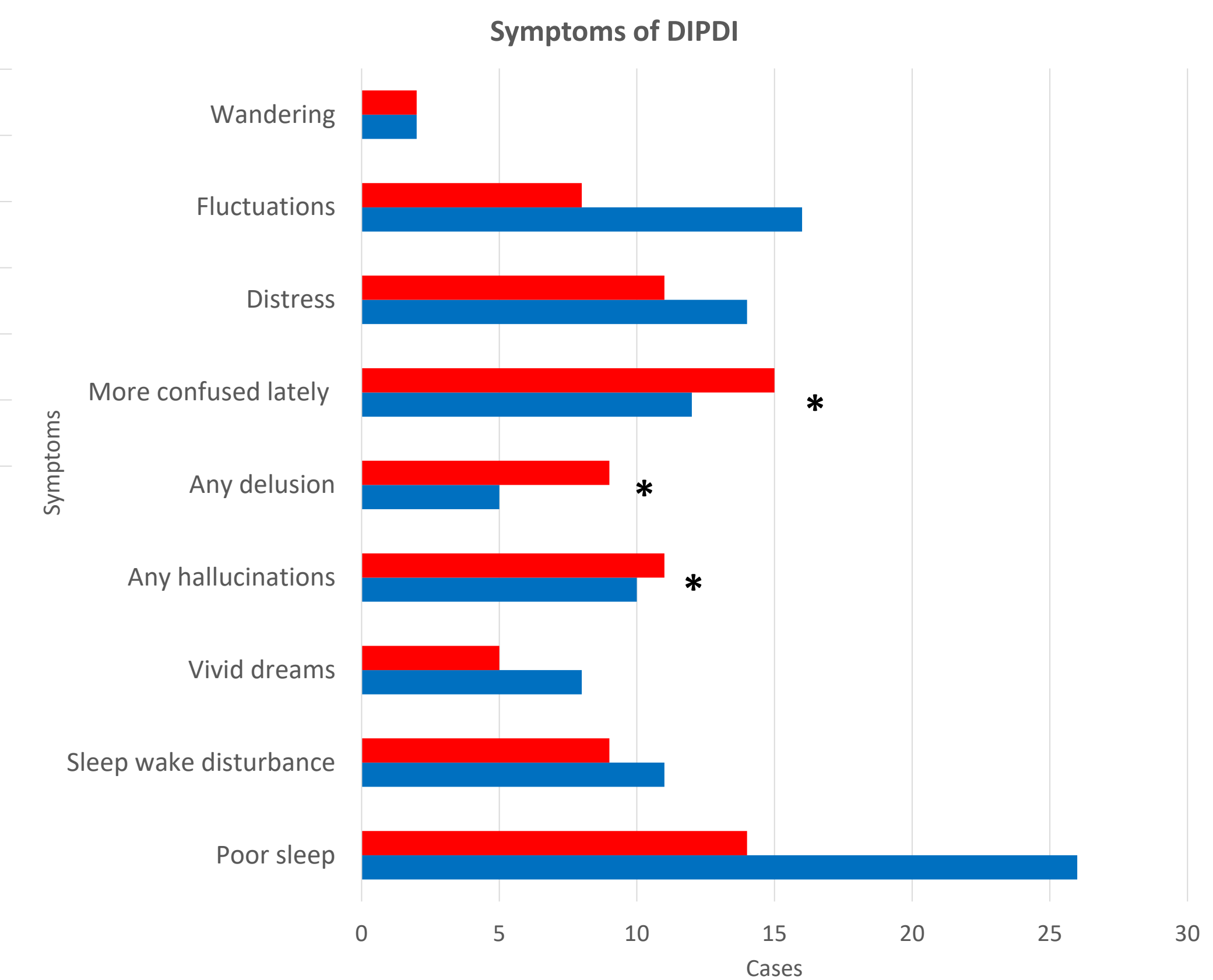


Figure 2: Symptoms of DIPDI.

Indicators for graphs:
■ Delirium absent ■ Delirium present * Indicates significant result (p<0.05)

- 53 cases in total with 18 DIPDI cases (34%) were collected.
- Tests such as repeating numbers and months of year in backward manner, three stage command, delayed recall and orientation score were significantly impaired in cases with DIPDI (Figure 1).
- Cases with delirium were significantly more likely to be more confused, report delusions and hallucinations (Figure 2).
- Hallucinations, especially complex (50% vs 8.6% respectively, p<0.01) and auditory hallucination (27.8% vs 5.7% respectively, p<0.05) were most commonly reported in DIPDI.
- Although delusions were more common, there were no significant differences in classification of delusions between group (p>0.05).
- Prolonged hospital stays was a significant outcome of DIPDI (p<0.01), but there were no significant differences in terms of falls or change in package of care (p>0.05).

5 Conclusion

- We identified symptoms and tests which may be useful in detecting DIPDI; this is useful for clinicians to help diagnose and managed DIPDI more effectively and minimise adverse outcomes.
- Prolonged hospital stays might have implication of increase in total hospital costs and risk of contracting hospital acquired disease.
- Future studies could use the findings in this study to inform interventions or clinical trials in delirium in Parkinson's.

References

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