Should neuropsychiatry flow both ways? Neurology inreach into psychiatric hospital.

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Introduction and Aim

For eight months I have been conducting fortnightly Neurology inreach into the psychiatric wards in Fulbourn.

This observational audit of all consecutive cases assesses the utility of neurology inreach into acute psychiatric hospital wards, through the quantitative evaluation of the case series, and presentation of qualitative experiences of service users and care providers.

Method

All consecutive referrals to a new service delivering neurology inreach to Fulbourn hospital in Cambridge were assessed over the first six months.

Patients were categorised according to their primary presentation.

Outcomes included whether diagnosis was clarified, whether medication was changed, and whether interventions were made that would otherwise not have occurred.

Illustrative case examples and are presented.

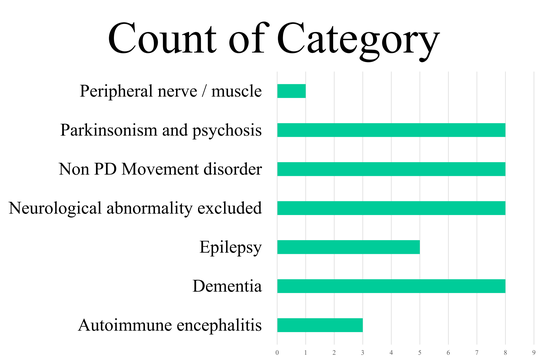
Results

41 unique patients were assessed over 16 visits (some on multiple occasions).

39 diagnoses and management plans were made. Two diagnoses remained unclear.

Medications were changed on 59% of first assessments.

Patient characteristics



- 20% of patients had Parkinson's disease and psychosis
- 20% had a non-PD movement disorder.
- 20% were diagnosed with a dementia syndrome.
- 20% had a feared neurological diagnosis excluded.
- 12% had epilepsy.
- **Importantly, 7% (three patients) were found with an antibody-proven autoimmune encephalitis. (1 LGI-1, 1 CASPR2, 1 NMDA).**

Vignette 1 - Parkinson's Psychosis

• 70 year old man with rapidly progressive PD since 2015
• Well until Jan 2020 – acute psychotic event – three admission – thought to be delirium but in retrospect coincided with the introduction of ropinirole (withdrawn).
• April 2022 – paranoid delusions and agression towards his wife – detained under section
• No physical health abnormality or cause for delirium.
• Trigger was switch from Sinemet to Stalevo (Sinemet+entacapone).
• Switched back to Sinemet alone, safinamide (MAO-B inhibitor) withdrawn. Rivastigmine patch added.
• Mental state improved, but motor fluctuation extreme.
• Four reviews over longitudinal visits culminating in presentation at complex Parkinson's MDT.
• Duodopa approved and excellent motor response. Enabled return home from S117 nursing placement.

Vignette 2 - LGI-1 Limbic Encephalitis

• 70 year old woman admitted with labile mood and affect, some confusion/cognitive impairment, anxiety and suicidality. Progressing over several months.
• Before admission, seen by private neurologist because of a movement disorder, diagnosed as functional.
• **Ten minutes into my assessment she had a left-sided faciobrachial dystonic spasm.** I spent another thirty-five minutes with her so as to observe another.
• Clinically presenting with emotional lability, oscillating rapidly from friendliness and optimism to tearfulness and despair. Episodic memory surprisingly good.
• I transferred her to medical hospital under my care, and plasma exchange was commenced the next day.
• Rapid improvement in faciobrachial spasms. Mental state gradually improved over weeks.
• LGI-1 later shown to be positive.
• Excellent progress and discharged home on prednisolone 40mg OD
• Faciobrachial spasms relapsed after two month - repeat plasma exchange. Mycophenolate mofetil commenced.
• Now on MMF 1000mg BD and Prednisolone 10mg (tapering). Some 'whirring of the mind', otherwise well.
• Patient and family extremely grateful for the rapid care.

Vignette 3 – Epilepsy in Alzheimer's

• 86 year old lady presenting with focal seizures 2.5 years previously, in the context of a UTI. No known dementia.
• Given benzodiazepines and required intubation on intensive care because of reduced conscious level.
• Treated with levetiracetam (LEV) by intensive care.
• Ongoing occasional seizures after discharge, and levetiracetam gradually titrated upwards to 1000mg BD.
• Increasingly agitated and less independent, and it was considered that the LEV may be the culprit for this, but it was preferred not to "rock the boat".
• Culminating in admission to psychiatric hospital with agitated anxiety. Florid delusional belief state, thinking that other residents and nursing staff are trying to kill her, and that several ward patients died yesterday and were buried in the garden. She points to small bruises on her arms as evidence for this.
• LEV cross-tapered with lacosamide over 14 days.
• One four-minute focal seizure during cross titration.
• Delusional belief state resolved. But remained agitated with cognitive impairment. Alzheimer's diagnosed.
• Discharged to nursing home, where she passed away 6 months later. No further seizures or delusions.

Conclusions

Overall, neurology inreach has demonstrably delivered patient and healthcare system benefits.

It has also been enjoyable for the neurologist to deliver, and well received by the psychiatric inpatient teams.

Referral criteria have been made as flexible as possible, and the quality of referral has been high.

Barriers to delivery have primarily been to do with commissioning and funding a new service. Specifically, the funding for neurologist time comes from the older persons psychiatry service, creating managerial tension when referrals have arrived from general adult or paediatric wards.

Nonetheless, this has been a relatively small input of consultant resource (0.5PA) to produce meaningful improvements in patient care, and reductions in length of stay.

We advocate that a similar model should be rolled out by cooperation across all acute trusts delivering psychiatric and neurological care, to break down barriers between neurology and psychiatry.

Given the evidence that a large proportion of the caseload is psychosis in Parkinson's disease, our next step is to develop a service for clozapine initiation and monitoring for regional patients with Parkinson's disease. We have initiated this for a single inpatient so far, with excellent response (psychosis resolved on 25mg ON), but at the cost of significant postural drop – 131/89 to 80/55 – confining the patient to a wheelchair.

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