Nottingham University Hospitals NHS Trust Neurology Service, an update

Background

Our Neurology service comprises of 15 consultants and serves not only the people of Nottingham and Nottinghamshire, but also those in, Leicestershire, Derbyshire and Lincolnshire accepting primary care referrals from these areas.

Managing referrals

In 2019 the National Institute of Health and Care Excellence (NICE) produced some helpful guidance for primary care physicians about when they should, and when they should not, refer patients with "neurological symptoms" (NG127[1]). For example, referrals for symptoms such as tremor, speech difficulties or focal muscle wasting would have a high chance of being correlated with an underlying neurological diagnosis, other symptoms, such as headache, fatigue and subjective sensory disturbance (tingling fingers, numb face etc.) have a very low chance of being associated with an underlying neurological disease. Similarly, whilst historically, conditions like chronic headache, chronic neuralgic pain (conditions which are not caused by structural disease of the nervous system) and restless legs symptoms might have populated Neurology outpatient clinics, there are now very clear pathways for the treatment of such symptoms, and these can, and indeed should, be instituted in primary care in line with the NICE guidance.

Before implementing the national guidance we saw emerging referrals themes such as

- conditions for which there are clear pre-hospital/ pre-referral steps that had not been followed (example – chronic headache and NHS rightcare guidance);
- patients referred with trivial symptoms not indicative of an underlying neurological disease (e.g. a tingling toe or a numb finger);
- patients re-referred for the same symptoms having been extensively investigated by the department in the past.
- In addition, our Did Not Attend (DNA) rate for follow up appointments was as high as 50% in some clinics

It was quite clear that Neurology outpatient appointments were not being used as productively as they could be. Furthermore, some of the conditions for which NICE recommends referral can be dealt with safety with an advice model, as demonstrated by several authors [Bennett et al, Anderson et al – see attached papers].

For every patient booked in to an appointment that they do not need, and for every DNA, there is a delay in assessment, diagnosis and treatment for a patient with an underlying neurological disorder. This means delay in the diagnosis of Parkinson's disease, Motor Neuron Disease, Multiple Sclerosis and Epilepsy, to name but a few, with the associated worse disease outcomes, distress and worry, as well as the impact upon the quality of life of our patients and their families.

Many patients in our community are suffering because of undiagnosed neurological disorders like Parkinson's disease and Motor Neuron Disease. We make these patients our priority, and it is important that we understand if patients have symptoms of these conditions, we will see them promptly in the neurology clinic.

It is also worth noting our system for returning referrals.

- There are very few referrals that are 'rejected' outright.
- We do return or redirect referrals where we cannot add value - for example, patients that have either been fully and extensively investigated but for whom ongoing health anxiety or a difference in health beliefs is driving the desire for further tests, or patients where neurology is not the correct speciality and the question being asked is outside our expertise.
- We recognise from our local audit that on occasion we should have made an onward referral to other services within NUH and we are already working to improve that process – we cannot do that when the most appropriate service is another provider.

- Other referrals were 'returned' asking for more information from the GP in order to allow us to triage referrals appropriately.
- In other cases, we responded with advice on how to manage the condition in primary care, with pointers for when to refer back, in keeping with NHSE and GIRFT guidance. These patients and GPs receive almost immediate advice on how best to manage their condition, rather than waiting to receive identical information many months later after a clinic appointment.
- Furthermore, having all the information needed, including previous letters from other centres is essential to having an effective consultation when one sees the consultant.

The appropriate use of triage not only allows us to identify and prioritise those patients who need to be seen, it also allows us to see them in the most appropriate setting and by a doctor most able to make a diagnosis and treat their condition. For example, we get many referrals for patients with tremor disorders without obvious features of Parkinson's disease. These patients are now preferentially triaged to a bespoke video movement disorders clinic, where a movement disorder specialist, with a minimal waiting time, will take advantage of modern communication technology, and see them. Using remote/ telephone clinics for follow up has absolutely transformed our outpatient DNA rates, which are now typically running at less than 10%. Patient's also benefit from being seeing directly in speciality clinics rather than moving from general to specialist clinic with the incurred delay in care.

As well as running outpatient clinics, we also manage urgent and emergency patients that present via the Emergency Department and have developed a Hyperacute Neurology Unit (HANU) that runs during the week as a same day assessment service for patients presenting to acute medical areas. Six to ten patients a day are seen on the HANU, and these are patients that would otherwise have been admitted to alternative medical areas, increasing bed pressures. A conservative estimate would be that the HANU prevents 20-25 admissions per week, and shortens length of stay by two or three days for each patient who is seen.

Creating HANU and triaging our referrals both help us create a more robust service, allowing us to see and treat the most appropriate patients.

Impact of Covid

The effect of the various waves of COVID can be seen in the data on the number of returned referrals at times of COVID peaks where we were redeployed, larger numbers of referrals were returned. See chart at Appendix A.

We began the vetting project in the early months of the COVID pandemic. The pandemic forced us to review what our neurologists were doing in clinic and the value of this when suddenly the demands on our time had dramatically altered.

There were pressing reasons to implement a change; our neurologists were being removed from outpatient clinics to cover COVID wards and stroke medicine, and, in line with national guidance, we were instructed to only see 'face to face' patients where there was absolute necessity. With a smaller number of clinics, and an even smaller number of face to face slots, introducing 'vetting' of referrals to make sure that the right patients were seen and in the right setting was crucial.

The alternative (a model run by most NUH departments, and most neurology departments) was to simply run up a vast waiting list and a legacy backlog of patients, which would harm all and this, is a legacy that has yet to be managed.

However, the vetting also grew from frustrations that over the last decade that the expectations of the neurology general clinic had dramatically altered. Changes in society to some extent in general practice, but certainly with an increase in health anxiety and expectations of the health system meant that large numbers of patients were coming to general neurology clinic in a secondary care setting had little or no medical benefit from being seen.

Even pre-pandemic this change had been noted, and the safety and efficacy of a vetting system such as the one we adopted had been studies [Bennet et al, Journal of the Royal College of Physicians of Edinburgh, 2019 and a further paper from Newcastle also highlights that this approach is far from unique to NUH [Anderson et al. Practical Neurology 2022]

Audits and safety netting

We have audited our vetting process and this has not identified any safety issues. An alternative approach of "seeing everyone/ seeing all referrals", is considerably less safe: patients without an underlying neurological diagnosis are preferentially appointed ahead of patients with Parkinson's disease or epilepsy or motor neuron disease who then experience delay in diagnosis and delay in treatment.

Safety netting is built into the system. Safety-netting is information given to a patient or their carer during a primary care consultation, about actions to take if their condition fails to improve, changes or if they have further concerns about their health in the future

Where a GP writes back and reasonably requests a review after advice, or due to anxiety, we accept referrals that have been re-referred to us (unless it was very clear that the referral was not appropriate for neurology, or the request is for a fourth or fifth opinion with clear futility).

We have started, and we are analysing, an audit of the vetting process. Early results are supportive of the system being safe, and further analysis will allow us to improve the system going forward. In the few cases where patients have accessed emergency care before a returned referral (where advice or more information was sought), none would have been seen prior to admission had the referral been automatically accepted, and there was no avoidable harm to these patients. There are no DATIX incidents of harm, and no harm evident through the eHealth system.

Some GPs have written to commend our vetting approach and how helpful they find the detailed information they receive back. In particular, GPs have expressed the positive impact of detailed advice on how to manage common, but unconcerning neurological symptoms, grateful for the 'straight to test' service we offer where appropriate, and happy to have some support in pushing back anxious patients insistent on a referral where the GP feels is of little merit. ICS colleagues have confirmed ahead of this meeting that they find the service very responsive and helpful.

In summary

A vetting process has been introduced into our neurology service to ensure that patients who will benefit most from the service are seen and receive treatment in a timely way. There is no evidence that this approach has resulted in harm to any individual patient and there have been many positive comments from patients and GPs. The introduction of vetting has also allowed the introduction of an acute neurology service which is delivering high standards of care to patients presenting in an urgent manner.

Dr Keith Girling, Medical Director
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Appendix A

MONTH	TOTAL REFERRALS RAS + Choose & Book	ACCEPTED	RETURN TO REFERRER WITH A+G	Return rate
Apr-19	582	567	15	2.6%
May-19	631	620	11	1.7%
Jun-19	614	605	9	1.5%
Jul-19	740	708	32	4.3%
Aug-19	601	589	12	2.0%
Sep-19	637	588	49	7.7%
Oct-19	722	640	82	11.4%
Nov-19	652	597	55	8.4%
Dec-19	564	520	44	7.8%
Jan-20	572	520	52	9.1%
Feb-20	521	463	58	11.1%
Mar-20	410	355	55	13.4%
Apr-20	258	168	90	34.9%
May-20	204	161	43	21.1%
Jun-20	312	239	73	23.4%
Jul-20	412	340	72	17.5%
Aug-20	295	164	131	44.4%
Sep-20	339	116	223	65.8%
Oct-20	452	148	304	67.3%
Nov-20	323	71	252	78.0%
Dec-20	503	177	326	64.8%
Jan-21	431	193	238	55.2%
Feb-21	380	186	194	51.1%
Mar-21	431	235	196	45.5%
Apr-21	448	257	191	42.6%
May-21	477	264	213	44.7%
Jun-21	564	292	272	48.2%
Jul-21	619	376	243	39.3%
Aug-21	525	295	230	43.8%
Sep-21	316	178	138	43.7%
Oct-21	611	383	228	37.3%
Nov-21	478	280	198	41.4%
Dec-21	491	282	209	42.6%
Jan-22	335	209	126	37.6%
Feb-22	418	256	162	38.8%
Mar-22	394	234	160	40.6%
Apr-22	454	272	182	40.1%
May-22	410	206	204	49.8%