ABN Guidance on Neurology Active Referral Management (aka Advice and Guidance)  
(ABN Exec and ABN Service Committee 2019-20)

**Purpose:** to optimise patient management by directing referrals to the most appropriate pathway, thus enhancing timeliness, effectiveness and appropriateness for each individual patient. The aim of RM is to improve patient care. RM is NOT primarily about restricting access, reducing waiting lists or making the lives of neurologists easier.

**Method:** RM is best undertaken by a small number of dedicated, experienced clinicians (number depends upon size of unit). They should receive explicit training and need job planned time for this activity which is labour intensive.

There should be a common entry point for both advice and clinic referrals. The platform should be electronic providing a clear audit trail, with responses recorded in the health records. IT support is essential.

**Outcomes:** options for RM will vary depending upon local protocols and services and may be adapted at times of emergency (e.g. pandemics) but broadly:

1. **Patient triaged to be seen:**
   - F2F or virtual/remote – sub-specialty specific guidance required; tiered system to escalate rapidly to F2F when necessary; most news require F2F; some reviews appropriate for remote
   - urgently (i.e. within 24-48 hours) - diverted to on call system
   - general neurology clinic (routine or soon)
   - specialist clinic (defined: TIA, First seizure, epilepsy, MS, movement disorders, nurse led etc.)
   - other pathway (e.g. back pain pathway etc.)
   - forwarded to previous consultant regarding advice (for return patients)

   In some instances it may be appropriate to communicate with GP regarding diagnosis and management whilst patient awaits appointment.

2. **Referral triaged for advice:**
   - agreed plan for investigation e.g. imaging and subsequent review where necessary
   - advice on diagnosis and management, supported by information (e.g. headache, RLS, ET, tingly limbs etc.)
   - judged not suitable for neurology but alternative service recommended (ideally this should be diverted at hospital level and GP informed)

   Letters to GPs should be individualised; whether to copy to the patient should be decided at an individual level. Advice should indicate when re-referral is advisable.

**Audit and Education:** Referral managers/triagers should be regularly provided with their outcome data. Audit of GP/patient satisfaction important to ensure functionality. Encourage development of a registry of good examples (e.g. headache pathways - see appendix). Specialist trainees require exposure to RM and succession planning requires adequate training also.
SUMMARY OF EVIDENCE

Enforced changes in our working practice during the pandemic have reinforced the need for a robust, responsive process. In order to produce guidance on Active Referral Management, the service committee set up a working group, which reviewed the available evidence on referral management processes. We summarise the evidence below:

1. Safety of Active Referral Management

The limited available evidence suggests that offering advice and guidance based on referral information is safe.

Concerns have been raised with regards to safety of a referral management process, in particular providing advice without consultation. However, the objective of referral management is not necessarily diagnosis. Referral management is a process of risk assessment and problem-solving on behalf of the referrer.

Cariga et al [5] triaged 1107 referrals; 222 (20%) received advice only; over a 6 month follow up period, there was a 16% re-referral rate, with one case of delayed diagnosis of a meningioma, missed on CT, noted on MRI brain.

In Belfast, Patterson [7] looked at 121 patients who received advice only between 2001 and 2005 and found this method to be safe. Over a follow-up period of at least 6 months (GP records, hospital admissions, deaths) 36 patients were re-referred of which only 3 received a minor diagnostic change on face to face consultation. 1 patient of 121 died from a stroke on a background of essential thrombocythaemia but had been referred for skull pain for which advice was given.

In another cohort of 76 email referrals, no significant changes in diagnosis were made even when seen face to face by other specialists [8].

Bennett’s survey in Edinburgh [9] showed that 10% of referrals for face to face consultation from primary care were dealt with by advice only. Of these 70% did not re-present to secondary care services over the next year. Only one patient (out of 236) had a major diagnostic revision following a delayed review. Headache was the most common symptom dealt with via triage rather than face to face consultation; pain and functional symptoms were the most likely to represent to neurology after “advice only”.

Sussman’s experience in Manchester [10], showed that triage within a commissioned Integrated Care Pathway expedited diagnosis of serious pathology where triaging directly to imaging on receipt of referral letters is available.

Forbes and Briggs [11] triaged 515 out-patient GP referrals in 2012 to a) diagnostic tests, b) advice only or c) out-patients and followed up outcomes over a 2 year period. 85 (17%) had investigation and returned to their GP without being seen and 55 (10%) were triaged to investigation and then seen in OPC. 316 (61%) were triaged to out-patients and 49 (9%) advice only. After 2 years follow-up 7/49 advice only were re-referred, 11/85 triaged to investigation and not seen were re-referred, and 3/55 who were triaged to investigation and seen in OPC were re-referred. One delayed diagnosis of idiopathic Parkinson’s Disease (by 6
months, assuming that the diagnosis could have been made at the time of scan result) was found in the investigation-only group.

2. Efficacy of Active Referral Management

Overall, offering advice and guidance by letter, email or phone seems to reduce the number of face-to-face appointments required and does not appear to result in a significant increase in re-referrals or significant mis-diagnosis. There is the potential that offering Advice and Guidance can increase neurology clinic demand by identifying unmet need. However, that has not been the finding in the majority of studies.

Todd et al [12] followed up 64 consecutive headache referrals over 5 years that were either triaged to imaging, advice only or face to face consultation. 22 of the 32 imaged patients did not require a face to face consultation. Of the patients who had never been seen in clinic 18% were re-referred, which was similar to the re-referral rate following a clinic appointment (17%). 34% of patients did not require an appointment over a 5 year follow up period.

Patterson et al [8] studied 76 consecutive GP email referrals and found that 45% of could be managed by email advice only, with another 12% by email advice with additional investigations. Only 43% required a face to face appointment. 10% were referred to other specialists for an opinion. In 3/8 of these, minor, non-significant changes in diagnosis were made. Imaging was requested in 30%. The service was acceptable to referring GPs. In Paterson’s second study he showed that waiting times were reduced significantly using an email advice service as a first point of contact for referring GPs [7].

In Dublin, Williams et al [13] demonstrated the effectiveness of active triaging with 19% (127/662) managed with advice only between 2006 and 2011. The service was welcomed by referring GPs who appreciated the educational nature of advice given.

A service evaluation in Manchester [10] found that 77% of referrals required a face to face consultation, using a triage system including access to imaging and a headache questionnaire to supplement referral letters as required. Of those not offered a clinic appointment, 12% were referred back over a period of 12 months. A separate retrospective review of 1000 referrals identified 2 brain tumours and 2 subdural haematomas, all of which were triaged directly to scanning based on the GP referral letter. No serious structural brain disease was missed in this cohort.

In Southampton, Kipps [14] piloted Advice and Guidance for all referrals and advice requests across a total of 18 GP practices. Approximately 12% (20/174) over 6 months were managed with advice only, with 7% (12/174) being offered advice instead of a consultation. However, 58% (28/48) of the requests for advice only resulted in a clinic appointment, representing a net addition of 16 face-to-face consultations (13% increase). Reasons for not offering advice included not being able to make a diagnosis from the referral letter, a need for examination, absence of details in the referral required for the management plan and clinical complexity. Offering advice and guidance only for patients who had been seen previously in clinic did not lead to a significantly increased number of requests in the same region.

Forbes and Campbell [22] run an Advice and Guidance service for GPs in the Southern HSC Trust area of Northern Ireland (referral catchment area c400,000). A review of process of
care for 1675 consecutive advice requests in 2017-18 was conducted. 24% requests were for existing review patients and 76% were new contacts. 7% were advised to attend out-patients without investigation, 6% were advised to attend out-patients with results of investigations and a further 6% were referred in for OP assessment during an 18 month period of follow up. In total 20% of new advice requests required face to face appointment over an 18 month follow up period. Imaging rates were very similar between 2 neurologists providing advice (40% v 36%), as was advice to attend OP (8.7% v 8.5%). 4% of patients attended Emergency Departments for assessment following Advice and Guidance – 16 for epilepsy, 10 for headache and 3 functional presentations. 0.7% of patients sought private healthcare referrals.

In Ottawa an advice and guidance service observed that face to face referrals were avoided in 34% of 387 consecutive referrals [16]. 80% queries were answered within a day. The majority of primary care providers (94%) found the advice offered helpful.

The Walton centre offer a Consultant Advice Line telephone service for GPs. A service evaluation reported that 37% of calls to an advice line led to out-patient hospital attendance no longer being required [17].

3. GP Interaction

The GP referral letter does have predictive value for assessing subsequent need for investigation. It is likely that neurology services will place an increased demand on investigation services when using non-contact assessment processes. This will need monitoring closely to determine future needs and areas where face-to-face might be focussed to manage this.

Changes in referral management can increase General Practitioners’ workload so any system change must be developed in conjunction with primary care colleagues. In general, referral management is seen as helpful by GPs. It can be used as an educational tool if developed together.

Bosnell from Oxford [15] looked at the predictive value of a) the GP referral letter compared to b) GP letter with additional patient questionnaire or c) face to face appointment for ordering investigations. Out of 101 patients (of whom 70 patient questionnaire responses were obtained) the positive predictive value for requesting appropriate investigations was 61% for the GP letter and 72% for GP letter + patient questionnaire. 13 tests for 11 patients initially ordered from the GP letter were found to have been unnecessary following the face to face consultation.

A King’s Fund review indicated that peer review of GP referrals may reduce the demand on specialist or emergency department referrals. The King’s Fund emphasised the importance of including an educational element into any guidance or referral rejection [18]. They also found that actively using guidelines (e.g. signposting GPs towards them or linking them with referral proformas) may be of benefit.

Compared to traditional out-patient services, GPs when asked, will usually state preferences for using non-contact assessments [23], and in practice will use these services in preference to traditional out-patient referral [6]. In February 2020 as part of the Regional Neurology review in NI, a patient focus group representing the Royal College of General Practitioners
viewed the process of seeking Advice and Guidance as useful and felt that sufficient safety nets were in place to reduce risk to patients [24].

4. Development and sharing of standardised guidance:

A number of centres have developed pathways/standardised guidance and referral forms (see referral proforma, “rejection letter” and headache pathway in appendix). Over time, these may lead to improved quality of referrals and better integrated working with primary care. The ABN website will curate examples of good practice [link].

Walton Centre: Good working relations in primary and secondary care have been promoted by accompanying rejection of a referral with educational information. A standard letter for rejected headache referrals is sent out including a link to a headache pathway which includes treatment options that should be undertaken prior to referring a patient to the neurology clinic. This was developed with support from the CCG. For general referrals a proforma is used that highlights recommended management for common presentations (e.g. blackouts or movement disorders) that should be considered prior to referring the patient (see appendix)

Edinburgh: focus on supporting and educating primary care with advice sheets [see appendix]

Taunton: individualised responses to advice and guidance and rejections, for common scenarios using “adapted templates”

5. Cost of providing a Referral Management Service

Job planning

Referral management is time intensive. It requires training, and dedicated time for responding and discussing cases, review of investigations ordered and completion of related clinical administrative work. Time per referral will vary depending on the service offered; in one service, the average is around 10 minutes per referral. One trust with established services dedicates 2 PAs per week for a referral service averaging 13,000 referrals per year, from a population of 400,000.

Tariff

Historically, often work has not been reimbursed; where tariffs are charged, they range from £19 - £45 per referral. The importance of adequate triage has been highlighted by the pandemic, and there is now recognition that this work requires resource; hopefully this will translate into appropriate funding.

Conclusions:

The limited available evidence pre-pandemic suggests that offering advice and guidance based on referral information is safe. During the pandemic, advice and guidance has become a standard part of our practice and an element that all wish to build on. When developed in collaboration with primary care, it enhances integration of patient care, promotes education on common disorders and ensures referrals are dealt with appropriately. The effectiveness in reducing demand for outpatient appointments depends on the approach of the individual neurologist providing the service.
Active triaging is a skill that does not necessarily aim to make a diagnosis, but focusses on problem-solving and assessing risk. It requires training, significant time input and formal job planning. Recognition of this has been inadequate to date but with increased focus on remote working in the current situation, that may improve. Those expert in pro-active referral management suggest that time required is often underestimated but saves significant clinic time. The most effective triage systems combine advice and guidance service with judicious investigation and offer educational input. A single system for advice and guidance and triaging would be desirable but one glove does not fit all. The solutions created by different hospitals will vary depending on local requirements. Remote working has of necessity become part of our daily work during the pandemic. Following the pandemic, we need to assess the elements that enhance our care and ensure they are recognised as an important element of the neurological assessment, while maintaining the ability to see patients face to face promptly when required.
References:

10. Jon Sussman (personal communication 2018)
12. Rachel Todd, Gavin Briggs, Raeburn Forbes: Long Term follow-up of patients with headache referred to Neurology Outpatients. Are there people we do not need to see? (no further details at present)
15. Bosnell et al. Outpatient Targets: Towards a faster track system (unpublished)
20. Walton Neuroscience Centre
21. Manchester Triage
22. Jamie Campbell and Raeburn Forbes (personal communication 2020)
26. Richard Davenport (personal communication 2020)

We acknowledge with gratitude the contribution of the working group led by Stefan Hinze with additional contributions from Raeburn Forbes, Richard Davenport and Cath Mummery.
APPENDICES – Examples of pathways

NHS Lothian Advice for management of migraine:
  NHS Lothian Advice for management of migraine/chronic headache in primary care

Walton Vanguard Pathway for Headache Management
  Vanguard Headache pathway (adults)

This appendix represents a work in progress as we compile a library of common treatment pathways.