Royal College of Physicians

Setting higher standards

Referring wisely

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Introduction

There is increasing demand on the NHS, with patients presenting to hospital with multiple comorbidities and increasingly complex needs. Inpatients are often seen by multiple clinicians during their time in hospital, including physicians from generalist and specialist teams. There is a great deal of variability in the pattern of referrals between generalist and specialist physicians. This is due in part to variation in service, but also to the fact that there is no clear consensus on which conditions lie under the generalist and which would benefit from specialist input. *Referring wisely* aims to promote conversation between physicians regarding referral patterns within general internal medicine and the medical specialties.

Referring wisely: why is it important?

This report outlines a set of common referral patterns that specialist physicians experience in their daily work. Specialists were asked to list the most common referrals where specialist input is necessary, and the most common referrals where it is deemed that the condition is within the remit of all physicians.

It is important to note that these lists are not intended to be used didactically, and should not be used arbitrarily to prevent discussion between specialties. It is also recognised that, in a constantly changing medical climate, these lists will evolve over time. However, it is envisaged that they could start a wider conversation about referral patterns, aid in rationalising and streamlining referral processes, and also help to identify educational needs of physicians.

Streamlining referral processes is of benefit to patients and doctors, and allows more productive use of resources. Avoiding unnecessary referrals will result in less fragmented care for the patient, facilitating a more holistic, person-centred approach and reduced duplication of tests.

In an underdoctored, overstretched NHS[1] where workload pressures are increasing, streamlined referral patterns can help to rationalise workload for the specialist physician, while advocating for adequate general medicine provision. Clearer guidance on referral processes will lead to more appropriate use of services and better utilisation of often limited resources.

What did we ask?

In seeking to better define referral patterns, the Royal College of Physicians (RCP) invited all medical specialties to contribute to this project via their joint specialty committee. We asked all medical specialties to provide two lists, as follows:

- **Please provide a list of the five most common referrals from other medical specialty physicians that you feel require a specialist's attention.**
- **Please also provide a list of five conditions that are commonly referred to you (from other physicians) for your opinion, where you feel that the management required should be within the knowledge domain of any physician such that referral is not needed.**

In most cases, the lists provided were generated from best opinion. However, in neurology, there had been a recent local Delphi consultation process* looking at which patients should be seen by neurologists, and this was used to inform the submission. In the neurology Delphi consultation,[2] 75 participants, from specialties including neurology, acute medicine, emergency medicine, intensive care and neurosurgery and from patient and carer groups, were included. This method might be useful in gaining an evidenced consensus view, should this work be developed locally.

Because of the unique nature of each specialty, it is of course recognised that interspecialty referral volumes differ between specialties. Some specialties play a larger role as referral makers, rather than providers.

Also, other small specialties receive relatively low volumes of highly specific referrals, thus giving them little by way of contribution to sections of this survey. Where specialties provided fewer than the requested number of referrals, this was accepted, given the complex nature and interspecialty variability of the task. There were two joint specialty committees which felt unable to provide lists; their reasons are detailed in Appendix 1.

Talking points

- **There are many conditions which are referred to specialist physicians that specialists consider should be in the domain of most physicians.**
- **These lists can be used to start conversations on a local level about which conditions lie under the generalist and specialist remits, and to guide referral pathways.**
- **It is recognised that there may be disagreement with these lists; they are not intended to be used didactically and should not discourage discussion between generalist and specialist physicians.**

* In this Delphi consultation, an open-ended questionnaire is provided; the results of this are recirculated and reassessed. The results of the second evaluation are summarised and recirculated, with participants invited to defend opinions that fall outside the consensus view. There is then a final round, where participants can review and comment on conclusions. In adopting this approach, a consensus view is achieved.

Specialty	Five most common referrals requiring specialist attention	Five most common referrals where knowledge of required management should be within the knowledge domain of all physicians
Audiovestibular medicine	1 Acute vertigo† 2 Sudden sensorineural hearing loss† (may be dealt with by ENT) 3 Chronic or recurrent vertigo 4 Imbalance with or without vertigo 5 Chronic distressing tinnitus † The specialty feels that these conditions are currently being referred. However, all physicians should receive training such that they are able to manage these conditions without the need for specialist referral.	1 Benign paroxysmal positional vertigo 2 Migraine-related vertigo 3 Monitoring ototoxicity 4 Uncomplicated tinnitus
Cardiology	1 NSTEMI (non-ST segment elevation myocardial infarction) / STEMI (ST segment elevation myocardial infarction) 2 Resistant heart failure 3 Symptomatic heart valve disease 4 Recurrent ventricular tachycardia 5 Congenital heart disease	1 Chest pain – stable 2 Breathlessness – heart failure 3 Murmur 4 Palpitations – including atrial fibrillation 5 Syncope
Clinical genetics	1 Complex multisystem disorder 2 Known genetic disorder / complex genetic results for interpretation and genetic counselling 3 Predictive testing for familial mutation for cancer gene 4 Predictive testing for familial mutation for cardiac condition 5 Predictive testing for inherited late-onset neurological disorder	1 Joint hypermobility syndrome / Ehlers–Danlos syndrome type 3 2 Diagnosis by genetic testing of non-complex cancer, cardiac or neurological disorders 3 Interpretation of simple genetic or genomic test results 4 Intellectual disability / mental retardation / autism unless syndromic or familial 5 Common conditions, eg haemochromatosis, haemoglobinopathy, familial hypercholesterolaemia
Clinical neurophysiology	1 Peripheral nerve entrapment, eg carpal tunnel syndrome 2 Loss of consciousness / blackout (with a potential differential diagnosis of seizures) 3 Other nerve dysfunction, eg peripheral neuropathy, motor neurone disease, traumatic nerve injury 4 Disorders of consciousness and conditions affecting sleep, eg parasomnias 5 Intraoperative neurophysiological monitoring	1 Pain syndromes without neurological symptoms do not need peripheral neurophysiology investigations 2 Fibromyalgia does not require neurophysiology investigations 3 Headache/migraine, probable syncope or transient loss of consciousness do not require referral for a routine EEG (as per NICE CG137 and 109)

Specialty	Five most common referrals requiring specialist attention	Five most common referrals where knowledge of required management should be within the knowledge domain of all physicians
Clinical pharmacology	1 Complex hypertension‡ 2 Complex toxicology / overdoses requiring referral as per Toxbase or clinical need 3 Complex medication-related issues (eg drug interactions, unexpected adverse effects or lack of efficacy, guidance on therapeutic drug monitoring) ‡ As defined by any of the following: > young patient (under 40) > suspicion of an underlying cause > resistant to treatment (usually defined as persistently raised blood pressure despite three drugs, including a diuretic) > intolerance to several different classes of antihypertensive drugs	
Dermatology	1 Blistering conditions 2 Severe drug reaction 3 Cutaneous vasculitis 4 Erythroderma 5 Potential opportunistic infection	1 Venous eczema and leg ulcer 2 Established eczema and psoriasis 3 Morbilliform drug/viral rash 4 Herpes zoster 5 Patient with generalised pruritus
Diabetes	1 Diabetic ketoacidosis and hyperglycaemic hyperosmolar state 2 Hypoglycaemia requiring admission 3 Acute diabetic foot 4 Renal–acidotic issues in patients with diabetes mellitus (DM), especially if not markedly hyperglycaemic or for those on dialysis 5 Hyperglycaemia with cerebrovascular accident–acute myocardial infarction (CVA-AMI) / perioperative 6 Deciding whether to admit with new DM	1 Managing DM with a variable-rate insulin infusion during acute admission 2 Starting insulin in newly diagnosed DM 3 Managing a single hypoglycaemic episode 4 Making a diagnosis of DM 5 Fluid balance in DM
Endocrinology	1 Symptomatic or severe hyponatraemia or where diagnostic doubt exists 2 Thyrotoxicosis 3 Adrenal insufficiency 4 Incidentaloma and non-incidental masses (thyroid/adrenal/pituitary) 5 Hypocalcaemia 6 Amenorrhoea/hypogonadism	1 Simple uncomplicated hypothyroidism 2 Simple uncomplicated obesity 3 Sick-day rules for steroids for those on long-term glucocorticoids 4 Acute hypercalcaemia

Specialty	Five most common referrals requiring specialist attention	Five most common referrals where knowledge of required management should be within the knowledge domain of all physicians
Gastroenterology and hepatology	1 Decompensated cirrhosis 2 Obstructive jaundice 3 Severe upper gastrointestinal bleeding 4 Acute inflammatory bowel disease 5 Dysphagia	1 Initial investigation of abnormal liver function tests / acute hepatitis 2 Infective diarrhoea (including *Clostridium difficile*) 3 Dyspepsia/reflux 4 Iron deficiency anaemia 5 Palliative/end-of-life care of patients with gastrointestinal cancers
Genitourinary medicine	1 HIV – with a positive HIV test or clinical indicator conditions 2 Syphilis – suspected clinically or with abnormal serological findings 3 Genital ulceration 4 Proctitis 5 Genital discharge	1 HIV testing – both offering and performing an HIV test 2 Uncomplicated minor infections in HIV-positive patients (simple upper respiratory tract infections or urine infections)§ 3 Oral candidiasis§ 4 Interpretation of CD4 and HIV viral load results in stable patients 5 Referrals to take sexual histories and assess risk-taking behaviour § Discussion in some cases may be helpful, particularly where there is diagnostic uncertainty
Haematology	1 Abnormal full blood count where the blood film is suspicious of leukaemia – blasts (acute myeloid leukaemia / acute lymphoblastic leukaemia) or autoimmune haemolytic anaemia / thrombotic thrombocytopenic purpura 2 Lymphadenopathy suspicious of lymphoma 3 Splenomegaly 4 Pancytopenia of unknown cause 5 Abnormal coagulation/bleeding 6 Management of transfusion issues	1 Abnormal full blood count with anaemia / thrombocytopenia / neutropenia / lymphopenia 2 Management of anticoagulation (warfarin, heparin, new oral anticoagulants) 3 Raised erythrocyte sedimentation rate 4 Lymphadenopathy related to infection
Infectious diseases and tropical medicine	1 HIV 2 Tuberculosis 3 Pyrexia of unknown origin 4 Difficult diagnostic puzzle** 5 Tropical disease **Difficult diagnostic puzzles include multisystem symptoms, raised inflammatory markers, recently returned travellers, and those who might be immunosuppressed	1 Rash secondary to antibiotic 2 Gastrointestinal infections, eg food poisoning 3 Antibiotic choice for common conditions

Specialty	Five most common referrals requiring specialist attention	Five most common referrals where knowledge of required management should be within the knowledge domain of all physicians
Medical oncology	1 Brain metastasis 2 Cancer of uncertain origin, for advice on appropriateness of investigations and management 3 Malignant spinal cord compression 4 Side effects of treatment, neutropenic sepsis, vomiting on chemotherapy 5 New proven diagnosis of cancer in a patient fit for treatment	1 Patient already discussed by multidisciplinary team and determined not to be fit for active treatment, admitted for symptom control related to their cancer, eg pain or general deterioration†† 2 As above but previously treated by an oncologist, now for best supportive care 3 Pleural effusions requiring drainage 4 Ascites requiring drainage 5 Non-neutropenic sepsis †† This includes patients who may require palliative radiotherapy, who should be referred to clinical oncology instead of medical oncology
Neurology	1 Suspected unprovoked seizure(s) in a patient who is not known to have epilepsy 2 Suspected neuromuscular weakness where spinal cord compression has been excluded 3 New cranial neuropathy, excluding new-onset, isolated, unilateral, lower motor neurone facial palsy (suspected Bell's palsy) 4 Acute severe headache where traumatic or aneurysmal subarachnoid haemorrhage has been excluded 5 Prolonged or unexplained coma, confusion or behavioural change	1 Provoked seizure due to sepsis, alcohol or non-adherence where the patient has returned to normal 2 Confusion in an older patient – in most cases this will be delirium; however, there are conditions, such as non-convulsive status epilepticus and autoimmune encephalitis, where neurology input is likely to be valuable; each case needs to be evaluated on its own merit 3 Encephalopathy due to sepsis or hepatic impairment 4 Confirmed traumatic or aneurysmal subarachnoid haemorrhage 5 Chronic sensory neuropathy in a patient with long-standing DM 6 Papilloedema – does not necessarily need to be seen by a neurologist, provided that there is a robust pathway for appropriate investigation, management and monitoring
Nuclear medicine	1 Advice about radionuclide treatment of hyperthyroidism 2 Management of neuroendocrine tumours	
Nutrition	1 Short bowel syndrome 2 Ethical decisions about feeding 3 Intestinal failure requiring total parenteral nutrition 4 Management of pancreatic insufficiency 5 Severe inpatient anorexia nervosa	1 Difficulty in placing a nasogastric tube 2 Suspected malabsorption 3 Investigation of weight loss 4 Investigation of a low albumin level

Specialty	Five most common referrals requiring specialist attention	Five most common referrals where knowledge of required management should be within the knowledge domain of all physicians
Palliative medicine	1 Withholding or withdrawal of treatment 2 Help with complex discharge planning / community follow-up 3 Symptom control 4 Carer support 5 Complex decision making, including ethical dilemmas eg withholding or withdrawal of treatment	1 Care of the dying patient 2 Discharge planning 3 Fast-track forms
Rehabilitation medicine	1 Hypoxic brain injury due to cardiac/ respiratory arrest 2 Neurological consequences of critical illness, such as critical illness neuropathy	
Renal medicine	1 Acute kidney injury (AKI) – all causes except dehydrated patients with pre-renal AKI 2 Elevated creatinine – query acute or chronic kidney disease 3 Hyponatraemia with abnormal kidney function 4 Hyperkalaemia with abnormal kidney function 5 Dialysis patient or kidney transplant recipient admitted with non-kidney condition	1 Fluid and electrolyte imbalance with normal kidney function 2 Chronic kidney disease with stable kidney function 3 Dehydrated patient with pre-renal acute kidney injury 4 Older patients (>80 years) with stage 3 chronic kidney disease and no albuminuria
Respiratory medicine	1 Known or suspected lung cancer 2 Known or suspected interstitial lung disease 3 Unilateral pleural effusion of unknown aetiology and any condition requiring an intercostal drain 4 Ventilatory failure – except when related to cardiac failure 5 Severe community (CURB 3+) or hospital-acquired pneumonia and infections where a less common pathogen may be the cause of infection, eg immunocompromised host, *Mycobacterium* species	1 Aspiration pneumonia in frail older patients 2 Pulmonary oedema with bilateral pleural effusions 3 Uncomplicated exacerbations of chronic obstructive pulmonary disease (COPD) and asthma where there is a definite previous diagnosis and the patient has a self-management plan 4 Metabolic acidosis 5 Nicotine addiction – all physicians should be trained to give appropriate advice and support

Specialty	Five most common referrals requiring specialist attention	Five most common referrals where knowledge of required management should be within the knowledge domain of all physicians
Rheumatology	1 Systemic lupus erythematosus / vasculitis / giant-cell arteritis in a multisystem systemically unwell patient, particularly with abnormal serology 2 Inflammatory polyarthropathy or other unexplained widespread acute pain 3 Possible disease or drug complications in patients with known rheumatological condition 4 Acute hot swollen joint 5 Complex osteoporosis with fractures	1 Osteoarthritis 2 Gout – if straightforward 3 Back pain 4 Chronic pain management 5 Isolated abnormalities on immunology (eg antinuclear antibody (ANA) positive) and biochemistry (eg minor elevation in serum creatine kinase) tests without clinical features to suggest a rheumatological problem
Sport and exercise medicine	1 Sport/exercise-related musculoskeletal pain, eg low back pain, knee pain, hip/groin pain, foot and ankle pain 2 Tendinopathies, eg Achilles, rotator cuff, tennis elbow 3 Non-inflammatory musculoskeletal pain, eg low back pain, neck pain, patellofemoral joint pain, groin pain 4 Sport/exercise-related symptoms, eg abdominal pain, muscle pain 5 Exercise prescription, eg management of chronic conditions, rehabilitation following neuromusculoskeletal injury or post surgery	1 Exercise prescription for management of chronic conditions
Stroke	1 Patients with suspected transient ischaemic attack 2 Patients with suspected stroke	1 Isolated vertigo 2 Isolated lower motor neuron facial palsy 3 Syncope- / sepsis-related deterioration of prior stroke deficit 4 Incidental cerebrovascular disease identified on brain imaging 5 Sub- / extradural haematoma, global hypoxic injury

What does this mean for physicians?

This document has begun to outline common specialty medical referral patterns. It is recognised that the decisions around specialty referral are complex and dependent on the nature of local service provision. We sought to gain a better understanding of the nature of referral patterns by asking specialists to indicate the most common referrals appropriate for their specialty, and referrals that they felt should be in the domain of all physicians.

These lists highlight that many referrals are made to specialist physicians which specialists consider should be in the domain of all physicians. This discrepancy is interesting and prompts discussion as to why this occurs. Potential reasons might include lack of appropriate generalist resource, ill-defined referral patterns, unfulfilled educational needs and a lack of understanding of what conditions fall under the generalist and specialist remits. In an NHS climate that requires maximum efficiency, with an expectation that patients should be seen by the right professional in the right place at the right time, these lists are important in demonstrating potential disagreement in patient management and referral pathways. The lists can be used to generate conversation at a local level and are useful in guiding referral processes and educational needs.

It is, however, important to note that the information in this report is not intended to be used didactically and it is recognised that there may be disagreement with the lists produced. Several specialties expressed fear that providing lists of referrals 'where knowledge is expected to be within the domain of all physicians' may discourage communication between acute general physicians and specialist services, which is essential for safe delivery of care. While the risks of producing lists that discourage referrals are acknowledged, these lists are in no way intended to discourage discussion, close working and open dialogue between generalists and specialists. It is hoped that the lists will provide a useful resource to generate conversation about referral patterns, and will lead to more uniform practice where possible.

Streamlining referral pathways

There is evidence to show that clear referral guidelines increase the quality and appropriateness of referrals.[3] The lists in *Referring wisely* can provide a useful aid in guiding and streamlining referral processes. It is recognised that these are likely to be variable, depending on the nature of local services; however, organisations may be able to utilise similar information-gathering exercises, including the Delphi process, to understand local needs.

Patient care

By increasing understanding of which conditions lie within the generalist and specialist remits and by streamlining referral pathways, unnecessary specialist referral can be avoided. This can improve the patient experience, allowing continuity of care, avoiding duplication and stopping unnecessary delay that may occur while awaiting review. A single generalist team managing the patient also allows a more holistic view of the individual, with less fragmentation of care.[4]

It is of course important to examine the patient perspectives when considering streamlining of referral pathways. Patients with chronic conditions may have an expectation of review by their specialist; equally, when presenting with new symptoms, patients may prefer to be seen by an appropriate specialist in that area. There is some evidence to suggest that patients place more trust in specialist care, with specialist review signalling knowledge and legitimisation.[5] There is, however, reason to believe that some patients prefer generalist management, citing reasons including continuity of care and the fact that care is person focused not disease focused.[4,6] Research into patient preferences over generalist or specialist care remains very limited and further work exploring this area would be valuable.

Promoting efficient delivery of services

An important implication of streamlining referral processes and better understanding of what lies within the generalist and specialist remits is that this allows more appropriate and best use of services and specialist time and resource. This is essential in an NHS climate that is overstretched. Furthermore, if the generalist has to manage more conditions that had previously fallen under the specialist remit, this must be adequately provided for in terms of resource, including workforce. Clear guidelines on this may help in advocating for these generalist needs. In gaining a better understanding of what conditions may lie within the domain of the general physician and what rests with the specialist, we make further progress in defining the role and importance of the general physician.

Education and training

Another important potential use of this document is in education and training. A possible reason for specialists receiving referrals that they feel should be in the generalist domain might be inadequate education to general physicians on specific conditions. The listed conditions can be used to inform education needs and to produce sessions to target knowledge gaps. Local trusts could utilise these lists and reconcile them against local knowledge, to identify learning needs and deliver teaching at local and regional levels. On a wider scale, the RCP will use these lists to inform teaching topics for physicians.

How to use *Referring wisely*

- Information from these lists will be helpful in informing local referral processes, in order to ensure that there are streamlined pathways for specific conditions.
- The lists of conditions should be utilised by educational providers to target potential knowledge gaps for all physicians.
- Local organisations could choose to perform a local information-gathering process to tailor sessions to individual trust needs.

Conclusion

***Referring wisely* has begun to outline common interspecialty medical referral patterns. In a climate where resources are increasingly strained and the benefits of generalist care are acknowledged, it is hoped that the findings of this report will be useful in promoting conversations regarding conditions requiring generalist versus specialist care. On a practical level, the lists can be useful in informing local referral pathways and educational needs. It is, however, important to recognise that these lists cannot be used didactically and should not be used to discourage dialogue between generalist and specialist.**

Appendix 1: Specialties not included in main text

Two joint specialty committees put forward reasons why the questions posed do not necessarily apply to their specialty. Their responses are recorded as follows.

Acute medicine

In acute medicine, there are a number of conditions that do not come under a single specialist – for example:

- acute kidney injury – the cause is often not primarily renal, especially in older people
- sepsis
- unilateral and bilateral leg swelling
- non-specific symptoms, eg weight loss
- multiple comorbidities.

However, once the patient is stable and a diagnosis is made, the help of specialists is frequently needed. Examples of this include:

- acute coronary syndrome for therapeutic management
- headache or weakness with symptom-related problems
- gastrointestinal bleed management; however, if low risk, referral may not be needed.

Geriatric medicine

For geriatricians, the greater problem is that other specialists do not always recognise the potential benefits to their older patient of comprehensive geriatric assessment and don't refer, rather than over-refer.

Many older patients attend several separate outpatient clinics (such as cardiology, renal, diabetes) for their many long-term conditions, when they could more appropriately be seen in a medical older care clinic and have a coordinated, consistent approach, unless they have a high level of complexity in a specific condition.

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