Respiratory services in the context of emergency medicine

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Introduction

With such a high proportion of emergency admissions relating to respiratory complaints it is inevitable that respiratory clinicians remain involved in the emergency medical take. This article outlines the tensions experienced when trying to deliver best care for emergency admissions as well as best care for specialist respiratory outpatient and inpatient services.

Resources and their allocation

University Hospital Birmingham NHS Trust has 1,100 beds in total spread over two sites a mile and a half apart. Nearly 600,000 patients are treated by the trust each year. Due to close supervision of budgets, expenditure and income streams the foundation trust has never overspent. Tertiary services are centred at the Queen Elizabeth Hospital (QEH) and the major emergency workload is handled at Selly Oak Hospital together with specialist trauma, burns and plastic surgery services. Emergency medical admissions average around 60 per day (range 45–95). A medical admissions unit (MAU) of 48 beds is available for stays of, on average, 24 hours. Some can stay for up to 72 hours if a discharge is likely within this time. The main wards are divided by specialty interest (respiratory, gastroenterology, care of the elderly, diabetes, stroke unit, and so on). In respiratory medicine there are currently six consultant whole time equivalent (WTE) (compared with 2.5 consultant WTE 10 years ago) and there is similar consultant input for gastroenterology, care of the elderly, and diabetes and endocrinology. The respiratory team is supported by excellent radiology services and a large lung function laboratory.

Emergency medical admissions

Emergency admissions are currently handled by two consultant on-call periods per 24 hours. The day-take physician covers from 9 am to 7 pm. During the morning hours the consultant undertakes their usual morning session (ward round, bronchoscopy, clinic, etc) but from 1 pm onwards they must be present on MAU to attend to recently clerked admissions with the help of junior staff. This work continues until about 9 pm when all admissions from the first on-call period should have been seen. The night-take then runs from 7 pm to 9 am. In the past, the physician would arrive around 8 am to observe all overnight admissions, which could number 36 or more (following Royal College of Physicians' guidelines this equates to about nine hours of work[1]). This was a soul-destroying task since the junior staff would finish their night-shift at about 10 am and the consultant would be left on their own, as the day-shift would be busy with the next day's admissions, with still up to 20 patients left to see.

This way of working has recently changed. The on-call overnight physician now only has to come in at 8 am to see those patients who, after admission, have gone straight through to the main hospital wards without staying on MAU (often none and up to 10 at most). All other MAU admissions are seen by clinicians who have dedicated sessions in their contracts to do ward rounds. Four physicians currently conduct weekday ward rounds covering the 48 MAU beds and eight additional beds on an ambulatory assessment suite. This divides the work into appropriate numbers of patients for consultants and junior staff to see.

There is no segregation of the take into specialty at the point of admission, that is we do not have separate specialty on-call teams for respiratory, gastroenterology, and so on. The best destination for the patient is decided on the post-take ward round and, if possible, they are moved to a bed on the appropriate specialty ward. A major problem with dividing the beds into specialist areas is that the distribution rarely matches the daily demands. Thus it is not uncommon for a respiratory patient either to have to wait some days for the relevant bed to become available or to be cared for on a different specialty ward. A future plan is to work from larger and more generic aggregations of beds with specialist groups working in defined teams, such as a respiratory team (consultant, specialist registrar, speciality training year 1 and a foundation year trainee), a gastroenterology team, a care of the elderly team, and a diabetes and endocrinology team working over 72 beds so relevant expertise is constantly available and the experience of junior staff will be slightly less specialised to enhance their learning.

Management of respiratory diseases on the medical admissions unit

Chronic obstructive pulmonary disease

One major focus on the MAU is the management of chronic obstructive pulmonary disease (COPD) as sufferers are prone to early readmission. In 2004 we received funding for two nurses who coordinated the management and early discharge of COPD patients with home follow-up. These nursing posts were initially linked to primary care and in the past two years this relationship had been difficult to develop and maintain. The nurses involved felt isolated and, with limited career progression opportunities, they moved to alternative jobs leaving the service in a fragile state. The structure has now been altered – a physiotherapist has been appointed to the hospital role of triage and early management and we are about to fill the vacancy for the nursing post which is more dedicated to the community management of early supported discharge (ESD). The primary care trust (PCT) was keen to support this further because of the potential financial gains now possible from ESD. Because abatement limits have been imposed to help protect financial stability in services, however, the savings the PCT could now accrue are limited and so progress in this area has been deferred.

A special part of the service to some COPD patients is the use of non-invasive ventilation (NIV) to support certain patients with acute type 2 respiratory failure and so avoid admission to the intensive therapy unit (ITU). We have had trouble securing the funding for this service since the potential financial gain from freeing up ITU beds would be realised in a different division of the trust from that incurring the expense of the new service. Movement of this funding has been difficult to achieve so the service has been set up from charitable funds and ad hoc staffing. We are currently under discussion about having physiotherapists run this service on a 24-hour basis to set up patients on NIV.

Asthma

Admissions of asthma patients are infrequent and this is mainly an outpatient specialist service. Our neighbouring trust has an excellent specialist asthma service that does not require duplicating. One of our consultants with a major interest in asthma now supports this service allowing our patients to access these facilities if they are needed and remain under a single consultant's care.

Lung cancer

Care of patients with lung cancer is largely handled by outpatients with three of the five physicians majoring in offering emergency outpatient care. Maintaining a broad interest among clinicians ensures that during holiday periods the service can continue. Bronchoscopy sessions are conducted in the mornings and are not affected by the on-call cover commitments. Losing the Monday sessions on bank holidays from Easter through to the end of May, however, severely stretches our capability to meet waiting targets at this time of year. We have moved both inpatient and outpatient pleural procedures to be done only by respiratory-trained medical staff as part of our bronchoscopy lists.[2] A programmed investigation unit would suffice for this purpose but in its absence this is the best way to streamline these procedures. We have ultrasound sessions running alongside our bronchoscopy lists so the best access point to the effusion for a given patient can be marked on their chest prior to the procedure.

A multidisciplinary team (MDT) of thoracic surgeons, medical oncologists, radiotherapists, respiratory clinicians, radiologists, pathologists, lung cancer nurses and palliative care nurses meets once a week. A bespoke hospital-linked database system has been implemented for entering patients' details alongside the outcomes of the MDT discussions. This has streamlined our treatment referrals or investigation and has transformed our ability to supply lung cancer audit information.

Immunocompromised lungs

A further aspect of our service is to deliver opinions to all the tertiary services within our trust that have complicated pulmonary cases. These are often transplant patients (cardiac, liver, lung, bone marrow, renal) or patients undergoing chemotherapy for cancer or complex vasculitides. These tertiary services are performed mainly at the QEH and two physicians work closely with these services to offer daily clinical opinion. This is organised in a rota to involve our specialist registrars since these patients are a rich source of educational experience. A weekly bronchoscopy service is offered at QEH but this is often insufficient to cope with the number of urgent cases. Unfortunately, these extra bronchoscopies then have to vie for time slots with other hard-pressed endoscopy services.

Interstitial lung diseases

Currently one physician who maintains a major clinical and academic interest in this group of diseases provides a specialist clinic and bronchoscopy service. A monthly interstitial lung diseases panel meeting is held to discuss investigations and pathology results for these patients in order to plan their treatment in a manner analogous to the lung cancer MDT meetings.

Sleep-related breathing disorders

This area of clinical practice is a major challenge for funding. The Birmingham PCTs were historically reluctant to take on the funding for this treatment and centralised all provision in a neighbouring trust. This arrangement has now ceased and local provision through the contracting process has been on an individual special case basis which is extremely wearing for all the staff involved and considerably slows the process down. A bottleneck in provision at the end of the diagnostic process meant that there was little incentive to spend resources on undertaking speedy investigation for large numbers of patients who would then have no treatment. Progress is slowly being

made in the contracting process and a new system is in place to register the sleep study investigations. We hope to reduce the exceptionally long waiting times for these services within the next year.

Proposed developments

We are keen to start a medical thoracoscopy service which will keep lung cancer patients who are under investigation within the trust. This will aid the control of patients and will avoid infringing the time targets for investigating and treating this disease. We currently have to refer to a separate trust which on occasion stretches the ability to keep within the time limits. With a similar goal we have bid for the equipment to start ultrasound-guided bronchoscopic needle biopsies which will speed up the staging of our lung cancer patients and again keep the patients within this trust. Longer term, we need to improve our NIV service since the trust is a tertiary centre for many neuromuscular patients who can benefit from this support.

A dedicated bronchiectasis clinic, funded from research monies, has been running in the trust for over 20 years. This service is now being managed by the trust within the contracting framework and there are plans to integrate this with an older people and disability physiotherapy service.

Conclusion

There are clear tensions, usually over finance, in maintaining adequate services across the broad range of clinical respiratory conditions. While the current financial structures are based on the belief that the profit motive should improve and define services, I personally do not think this is true of healthcare delivery. I am increasingly being reminded that 'money doesn't talk, it swears';[3] because the business model seems to be the proposed course we will follow it along with everyone else. It does seem to defeat the idea of a truly 'national' health service, however, as local arrangements and decisions often determine different service provision in some communities compared with others; the postcode lottery of treatment is likely to continue until the level of service provision required locally is centrally defined.

Currently there is pressure for medical specialties to dissociate themselves from emergency medicine in order to enhance their services. This is a real tension but I think it should be resisted. We cannot throw away the generalist expertise available within our specialist physicians, such as in the respiratory group, when emergency medicine recruitment and appointments will not fill the required places for at least another 15 years. Involvement in MAU has to be seen as an effective use of time not a specialist's burden. The improvements we have made in this direction are important steps to maintain relevant expertise across all disciplines. It is a time of extreme unease among junior staff about the way their training programmes are advancing. They feel that their ability to choose their experience is becoming more limited – it is important we keep their experience as broad as possible in the foundation years.

References

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