

The Imperial College Healthcare Sleep Centre

A Story of Clinical Engagement and Team Empowerment

The Team:	
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<u>Clinical Scientists</u> Ramesh Ghiassi (Diagnostic Service Lead) Kevin Murphy PhD	<u>Sleep Nurses</u> Sandy Ma de los Santos Aleta Villagrancia Ward 8 South nursing team
<u>Sleep Administrator</u> Alanna Taylor	

The Background

In the UK the developing field of sleep medicine has lagged behind that of comparable countries. The early development of a sleep service within our Trust created a demand that simply could not be met. Our own research showed that on average patients with sleep apnoea had had symptoms for 8 years before they were diagnosed. This service failure was marring patients' lives and putting them at risk.

Our research and the ever increasing demand for our service showed that there was an urgent need for innovative reengineering of our processes. The key to our success in achieving this was clinical engagement and the empowerment of the clinical team to effect the necessary change.

The Problem

The sleep medicine service at our Trust was fragmented, under-resourced, and failed to meet patient needs. Clinical governance was weak. Facilities were lacklustre. The patient

experience was poor. Delays to treatment were lengthy. Change was needed to increase both efficiency and effectiveness.

Developing the New Service

Close involvement of clinicians and managers with appropriate clinician empowerment was essential. Initially clinicians engaged the managers and explained the clinical need, the likelihood of sustained demand for the service and the way in which current funding arrangements could allow the service to thrive. The managers responded by empowering the clinicians to effect the change.

It was clear that the service needed to be developed in phases. The first phase was to improve clinical governance by focussing the service on one site where there was the most expertise. The second phase was to develop a vision for a greatly improved service. The third phase was to incorporate this vision into changes taking place elsewhere. A fourth phase was to extend the role of nurses. The fifth phase was to build capacity and

address the legacy of long waiting lists. Finally, the service was streamlined by introducing a one-stop approach.

Improving clinical governance

Until recently Charing Cross Hospital was part of the Hammersmith Hospitals NHS Trust. Sleep medicine was also being conducted on another site (Hammersmith Hospital). Team members with expertise were too thinly spread and protocols were not standardised; it was difficult to provide the very high quality of clinical care we wanted and our patients deserved. Co-location and standardisation of the sleep services was identified as the first phase of the necessary clinical service redesign. As a result the care of several hundred patients was transferred from Hammersmith Hospital to Charing Cross Hospital. Better integration of the sleep team became possible with resulting improvements in clinical governance processes and patient care.

Creating a vision

The old sleep laboratory amounted to a makeshift bedroom adjacent to laboratory benches. There was a need to create a vision that something better could be achieved and the first step was to name the new organisation the West London Sleep Centre and appoint a Director to provide clinical leadership and momentum for redesign. This led to the creation of a multi-professional project group with effective managerial collaboration but a strong clinical lead.

Dovetailing with other developments

The development of a programmed investigation unit used more in the day than at night gave the opportunity to adapt two side rooms for the

investigation of less complex sleep patients. Patient questionnaires were used to demonstrate the quality of the service.

Bringing nursing staff on board

Few of the nurses involved had any experience of sleep medicine. The challenge was to convince the nurses of their importance in the team and to show them how interesting sleep medicine could be and how it might even lead to new career opportunities for them. This was achieved through an intensive education process involving the respiratory consultant and scientific staff. Competency was appraised and progress monitored. The emphasis was on the importance of everybody in the team for optimal patient outcome.

Building Capacity

There remained a need for a greater capacity and an improved capability in the area of complex sleep testing. Based on Payment by Results income, capital investment was made in a purpose built Sleep Centre alongside the programmed investigation unit. Protocols were reviewed to minimise unnecessary attendance while ensuring standardised follow-up to meet patient needs according to the best available evidence and the SIGN guidelines. A patient questionnaire, focussed on the complex cases, had a question asking the patients' overall impression and 96% of patients reported that they viewed the service as excellent or good. Not a single patient reported an overall poor or very poor service. Despite high levels of patient satisfaction, problems such as excessive room temperatures were identified and air conditioning and window shutters are currently being installed.

Addressing the long waiting lists

Waits had been so long that patients often forgot their appointments and failed to attend. Staff with suitable sleep medicine skills are in short supply in the UK but, by transferring staff from the Hammersmith site and recruiting Australian scientists, the necessary tests were completed and processed. Confirming appointments by telephone and shorter waits have resulted in failed attendance rates

being halved (27% down to 12.6%). To deal with the shortage of skilled personnel, efforts are being made to retain key staff such as by encouraging involvement in research. One key scientist is already working on a PhD. The Principal Clinical Scientist has recently won a Leading Practice through Research Award from the Health Foundation. This award has an emphasis on developing leadership within healthcare and on service development.

The One-Stop Principle

- Immediate scoring of respiratory sleep studies
- Immediate management plan by consultant with patient
- CPAP instruction same morning
- CPAP supplied immediately
- Better for patients and better for staff
- Savings of £13K per annum from appointments no longer needed

One-stop approach for quality care

A further innovation suggested by the clinical lead was the development of a one-stop shop approach to sleep studies. The proposal was that a patient attending for a sleep study would have the study processed rapidly the next morning, then be seen by the consultant and a management plan made. If treatment was necessary, this would be started the same morning. Such an arrangement could be better and quicker for the

patient, better for the doctor who could make a management plan in consultation with the patient and better for the administrative staff who would not have to book additional appointments. This system was introduced and has improved the patient pathway in accordance with best practice and saved about 640 appointments per annum with estimated savings of £13,000. Savings in time have enabled staff to focus on the waiting list and prompt sleep study analysis.

Sleep Centre Innovations

- New one-site service with 4 new dedicated sleep study rooms and new sleep equipment
- Wait for sleep studies reduced from up to one year to one or two weeks
- 800 per cent increase in weekly inpatient capacity – now up to 16 patients as well as 45 outpatients weekly
- Respiratory Screening to CPAP: New One-Stop-Shop Service
- Non-attendance rates halved from 27 percent to 12.6 %
- More than 96 percent of patients surveyed rated service as good or excellent

End Result

The net result of these changes was improved capacity (800% increase), greater efficiency and, consequently, a dramatic shortening of the waiting list from up to a year down to, at times, as short as a week. The patient pathway has been shortened, patients are streamed into the best pathway (complex or non-complex) for their needs and patient satisfaction is high. A random sample of over 100 patients admitted for a sleep study was given a questionnaire. Over 96% described their overall view of the service they had received as good or excellent. The streamlined approach is more efficient and is therefore good value for money. This means that more funds are available to expand the

service and further improve the benefit to patients in the future.

The principles of the innovations we have made are sustainable but our strategy is based on continuing change. More developments are planned. Already the name of our facility has been changed to the Imperial College Healthcare Sleep Centre as we have become part of the UK's first Academic Health Science Centre and the Imperial College Healthcare NHS Trust. And along with these developments we are about to offer the same level of service to patients at our new sister organisation, St Mary's Hospital, Paddington.

And finally

Some comments from our patients:

'A much improved service. The staff were great and made me feel very relaxed and kind and efficient'. 'Congratulations on an excellent service!'

'It was perfect. The staff was wonderful'.

'The work of the nurse in charge of the unit was of excellent standard. She was skilled, The service was great - keep it up. Great breakfast'.

'Absolutely faultless. Your team were efficient, friendly, courteous and informative. Thank you'.

'Carry on with your service. Its excellent'.