

The patient focused approach: a better way to run a hospital?

ABSTRACT—It can take 2 hours of hospital staff time to obtain a routine chest X-ray, up to 47 clinical staff may be involved with a patient during a 5-day stay, and only a quarter of total costs may be for direct patient care, so some hospitals are experimenting with patient focused care by relocating services such as X-ray to the bedside, training ward staff in a wider range of skills, and managing care itself by using multidisciplinary protocols. Potential benefits can be measured in terms of reduced process times and faster turn-round, but duplication of, for example, high-tech pathology and radiology equipment is expensive, as is releasing staff for training. Proponents say that higher quality patient care will result without increased cost, and theoretical analyses suggest that advantages should outweigh disadvantages. The more established patient focused units in the UK are now over a year old; practical analyses of their quality and cost are under way.

Hospitals are complex places. Doctors, nurses, physiotherapists, phlebotomists and other clinical staff contribute to the care of each patient. The processes of patient transportation, coordination, scheduling and documentation often overwhelm the clinical and technical aspects of care [1]. In a study at one district general hospital in the United Kingdom (UK) an average of 47 different clinical staff participated directly in the care of the typical patient who stayed for 5 days [2]. A similar study at a teaching hospital in the United States (US) estimated the number at 120 [3].

Taking a chest X-ray in the UK can involve 11 staff in 30 discrete operations, take up more than 2 hours of staff time and keep patients off their wards for twice as long [2]. The situation is as bad in the US [4]. The phlebotomist or social worker may try to see patients in their absence. Time is wasted. A deadline for a batch run in the pathology laboratory may then be missed, incurring additional costs through the need to analyse a sample individually later or delaying discharge.

Such wastefulness is not confined to clinical activities alone. It was widely reported that it took 6 people and 17 work steps to change an electric light bulb at one hospital [5]. To devote 2 hours of staff time to obtain an X-ray which is taken in a few minutes smacks

of inefficiency. When expensive diagnostic equipment is centralised, as the Department of Health has recommended [6], economies of scale can be negated by the cost of the process that surrounds the use of such facilities. For every pound spent on direct patient care, three or four more are spent on waiting for it to happen, arranging to do it or writing about it [1]. Enormous opportunities exist for process failure.

Patient focused approach

The patient focused approach is proposed as one way of streamlining the provision of care in hospitals, raising quality and shifting funds to direct patient care. It has been adopted by several US hospitals and some British hospitals are trying it [2].

The thrust of patient focused care is to shorten or eliminate process steps and limit the number of staff involved with each patient. Services are devolved to the bedside, the skills of nursing and paramedical staff are broadened and channelled through multidisciplinary protocols and integrated care pathways. Although some British hospitals have embraced the idea, professional bodies have expressed reservations [7-9].

Devolution of equipment and services

Services should not be devolved on ideological grounds alone. Rigorous analysis of current and potential use is needed to justify their devolution. In the case of pathology, the speed and convenience of tests done at the bedside must be weighed against their limited range and the need for training, quality control, equipment maintenance and safety standards, which are harder to achieve when devolved, as well as the cost of equipment.

For radiology, the cost benefit analysis is even more important. Opponents of patient focused care suggest that it cannot make sense to invest £100,000 or more in a facility that may be used only a few times a day [10]. They express concern about the professional isolation of radiographers who staff such a facility, and question how they fill their time when not taking X-rays. Even greater concern is expressed at the suggestion that cross-trained nurses could take X-rays unassisted [11]. The problems of training, quality control, equipment maintenance and safety mirror those in pathology.

In these objections the interests of the radiology department and the professionals appear paramount, not those of patients who stand to benefit. Satellite

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facilities can minimise transport and waiting times. Patients can be easily wheeled round to a satellite facility and back again. They remain in reach of emergency equipment, which is not available in lifts and corridors, and nursing staff. X-rays are available more or less on demand; one requested early on a ward round can be ready before that round ends, a benefit of low utilisation. X-rays are available on the ward immediately so may be seen by the requesting physician who does not have to await reporting or a porter. Our experience suggests that early discharge may be facilitated (see page 149).

The advantages of the satellite are unlikely to justify the capital expenditure if they are confined to proximity. Process steps must be shortened and as many hand-overs as possible eliminated. The potentially idle time due to low utilisation is filled by the radiographer in prioritising work, fetching patients, returning them to their beds with their new films and organising the batch move of X-rays from ward to department for reporting at a time that ensures films are available for ward rounds. Such use of radiographer time is no greater waste of 3 years of radiography training than the time that radiographers in a centralised department spend waiting for a porter to bring a patient or for a clerk to find previous films. Production processes that maximise the use of one resource can rarely expect simultaneously to maximise the use of another [12].

If the patient's named nurse takes the patient round to the satellite X-ray facility, exposes the film then returns the patient to his or her bed, the patient service is even better, film quality notwithstanding; new equipment with auto-exposure is easier than ever to use. The radiographer's time could be better spent on more technical and challenging investigations such as fluoroscopy and ultrasound. A trade-off has to be made between process and specialisation. To have nurses rather than radiographers taking plain X-rays may strike an inappropriate balance but should not be dismissed without exploring what training might be required for them to do a good job. The Council for Professions Supplementary to Medicine keeps an open mind [8].

A more realistic approach may be to integrate radiographers more closely into the daily ward routine, caring for patients when not needed for their unique skills. A clear advantage of this alternative is that one or two radiographers rather than many nurses have ownership of the X-ray facility. They are more likely to accept willingly the responsibility for maintaining standards and for the whole process of obtaining X-rays.

Multiskilling

Not so many years ago, doctors themselves took radiographs at night, cross-matched blood and measured blood sugar levels. If the nurse who looks after a

patient is also trained to take blood and site intravenous cannulae, and is charged with doing so, co-ordination between professionals is easier. The nurses know their patients' timetables and can take blood or give intravenous drugs at times most convenient for them, without the need to find the phlebotomist or doctor. (It can take longer to bleep a house officer than to take blood.) Patients receive a better service if their tissue intravenous cannula is replaced as soon as the problem is noticed so that the infusion continues or antibiotics are given on time rather than delayed while a busy house officer is summoned.

The United Kingdom Central Council for Nursing, Midwifery and Health Visitors, in guidelines on clinical practice, lays stress on allowing nurses to undertake virtually any activity providing that sufficient training is given and the nurse is competent [13]. The Royal College of Nurses [14] and the College of Occupational Therapists [8] nevertheless see multiskilling as a threat to their professionalism.

Some occupational therapists apparently would prefer a second occupational therapist to accompany them on a home visit rather than a nurse who knows the patient. We believe that patients would prefer to have a nurse who already knows their abilities and limitations. Encouraging nurses and occupational therapists to work together will give each a better understanding of the other's skills, and help nurses to build on the work that occupational therapists lead. No National Health Service hospital ever seems to have enough therapists. If some of their less specialist burden is shared with others, the scarce therapists can use their time more effectively. The same argument applies to junior doctors whose less technical tasks such as phlebotomy are being assumed by others [15], a move driven by the need to meet junior doctors' hours targets. Such devolution of tasks does not always save the devolver's time. Most doctors have had experience of not finding results because blood could not be taken by the phlebotomist on the morning round, and have had to negotiate for the late sample they obtain to be handled as an emergency. Nonetheless members of 'Task forces' on junior doctors' hours are regularly told by doctors in training that the devolution of blood taking, intravenous injections and setting up infusions has made a big contribution to reducing doctors' hours and ensuring adequate sleep.

Although nurses' concern that they are being asked to do a wider range of activities to the potential detriment of exercising their hard-earned skills in the holistic care of patients is understandable, it overlooks the time savings that should arise from the reduced need for coordination and scheduling possible through blurring of professional demarcation lines. If nurses are trained to meet a greater proportion of their patients' care and treatment needs, the patient focused approach should actually enhance their ability to deliver holistic care.

On a non-clinical level, we believe it makes sense for

ward staff to change old light bulbs themselves as they would at home, rather than fill in works requisitions, chase up the electrician and perhaps wait several days for the job to be done.

Multidisciplinary protocols

Time savings are also likely from the use of multidisciplinary protocols and integrated care pathways [16]. Sadly, the mere discussion of protocols raises antibodies in many clinicians, even though protocols are little more than proposed sets of diagnostic, treatment and care activities. In fact, most clinicians do work to sets of protocols that are more or less explicit, written for the benefit of junior staff or passed on by word of mouth. The need for medical audit has helped acclimatise doctors to discussions about the way they care for patients. Review with other professionals, nurses or therapists, can be a useful exercise, particularly if there is overlap in their activities.

If only half the expected needs of patients can be identified ahead of time—a modest estimate—we believe that significant benefits can be achieved in planning, admission and discharges and use of resources such as pharmacy stock and ward staffing. A brief review of current nurse care plans, medication sheets and medical progress notes for patients with common conditions should persuade clinicians that there is already much common ground in documenting treatment and care. The use of protocols with exception reporting, ie writing only when an expected course is *not* followed, simplifies data collection for audit. More than half the time spent in documentation can be saved [3] and devoted to direct patient care.

Conclusion

Patient focused care is one approach to improving the organisation of services in hospitals that is undergoing trials and evaluation; the theoretical benefits are appealing. For patients it promises a more timely service with fewer cancellations of admission and discharge and more knowledgeable, familiar staff on the ward at all times. Doctors can expect a better, more reliable diagnostic service and fuller information about patients' needs and progress from the multi-skilled ward-based staff, and the multidisciplinary record with 'exception reporting' should highlight problems. Junior doctors benefit from a reduction in routine tasks such as phlebotomy and suffer fewer interruptions from their bleeps although, as more of their tasks are assumed by others, they may spend more time on communication, chasing up colleagues

and doing some of the work themselves after hours. It is possible that patient focused considerations that have so far only skirted round the edge of junior doctors' roles will highlight the value of multiskilled juniors too.

Many of the arguments against the patient focused approach involve protecting professional interests rather than those of patients. However, serious concerns about quality and cost remain to be allayed. Initial experiences are favourable [2] but we do not yet know if the predicted time savings will materialise.

In October 1993 we created a 114-bed patient focused unit from four traditional medical wards, duplicating central facilities such as X-ray, pathology, pharmacy and endoscopy, and we invested heavily in staff training. We are evaluating (see following article in this issue [17]) whether it has improved the care we deliver or enabled us to deliver similar levels of care in our present tighter financial environment.

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