# "In some ways it is very different... but in other ways nothing has changed": Flexibility and Changing Patterns of Activity on the Hospital Ward

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### Introduction

This paper presents preliminary empirical research from a project that examines how institutions shape the timing of working and travel practices in order to understand how everyday working and travel arrangements matter for the constitution of total energy demand and carbon emissions of large institutions. It does so to contribute an empirical conundrum to discussions of conceptualising change. Building on the starting premise of the discussion paper "... that people do not use energy for its own sake, and that by implication changing demand relates to changing practices..." (Blue, Morley, Marsden and Shove 2016, 1) it provides an example of changing demand that, on the face of it, does not relate to changing practices, and asks how to conceptualise significant differences in demand for energy (and in this case demand for patient bed space in the hospital) when everyday working practices on the ward appear remain stable and fixed.

The NHS is the largest public sector contributor to climate change in Europe putting out 25 million tonnes of carbon each year. Whilst huge investment in technological fixes and behaviour change programmes has resulted in an 11% reduction in carbon emissions since 2009, activity in the NHS has increased 18% in that time and this increase in activity currently show no signs of slowing down. (Sustainable Development Unit, 2016) As such, understanding changes, and in particular increases, in the patterns of working activities that underpin increased demand for energy, will be crucial for assessing the scope for steering demand for energy.

This paper draws on observations and interviews with staff on 'Ward 13' of a large, acute hospital, 'Hospital A', which has, in the last six months, changed from being a short stay to a long stay ward. It does so to raise an empirical challenge to conceptualising changes in patterns of activity, that is, how to spot changes or differences in patterns of activity. Whilst staff on Ward 13 note that the 'turnover' of patients, 'bed-flow' and bed demand, and the pressure and pace of the working day have all dramatically changed, when discussing clinical and patient pathways, and working arrangements on the ward, it appears that none of the practices, processes, or timings of everyday activity on the ward have changed.

Instead staff regard the change in 'throughput' of patients being down to the change in the 'type' of patient that now gets admitted to the ward, that is the condition or illness that the patient is suffering from determines how long they stay on the ward. However, it has been well demonstrated that the timing of a patient's operation depends only in part on their condition and significantly more on various timings in the hospital. For example it depends on different departments'

consulting and opening hours (see Zerubavel, 1979; Shove et al., 2012: 87). It follows therefore, that 'bed-flow' (that is the effective management of clinical pathways, procedures and hospital beds), is only in part an outcome of a patient's condition and is rather an outcome of the patterns of everyday activity in the hospital.

Patient flow, or lack of it, matters significantly for issues relating, to patient health, care and experience, but it also important for energy demand. This year Hospital A given opened its last of six 'winter pressure' wards, that used to be opened only as required to deal with 'seasonal demand'.

If we follow the argument that bed demand, and therefore energy demand, is an outcome of patterns of everyday activity in the hospital, and not solely dependent on the conditions of patients coming in to the hospital, then a first logical step would be to investigate everyday activity on a short stay ward and on a long stay ward, in order to understand the different practices, different processes, and the different sequences of activities involved in the 'throughput', flow, and discharge of patients. Ward 13 had recently undergone a transition from being a short stay medical ward to a longer stay cardiac ward and so presented itself as a clear site for examining these differences in working arrangements. However, the potential for examining changes in the patterns of everyday activity quickly hit a roadblock, as staff described that whilst the patient flow and 'bed pressures' had changed significantly, the daily routine on the ward itself had not changed. None of the practices had changed, shifts had not changed, and none of the staff (apart from the rotating specialist doctors) had changed. In fact as they described the everyday routine was the same as it always had been.

In what follows I hope to draw out this difficulty in conceptualising change. Whilst there is clearly a difference between treating general medical and cardiac patients, how is this difference reflected in the practices on the ward? Is there a difference beyond just the 'types' of patient that were being treated on the ward? Less than half the number of patients was being discharged, and patients were staying for nearly twice as long. Can working arrangements really be said to be 'the same'? Getting to grips with this empirical challenge presents a number of methodological questions: What counts as change? How can we 'see' differences in patterns of activity?

In order to open this question out further and to contribute this empirical conundrum to discussions about how to conceptualise change what follows is an account (as I have been able to put it together) of the daily, weekday practices on the ward, and then how I have begun to understand how the discharge process has changed as the ward has moved from short to long stay. I finish by answering some of the cross-cutting questions suggested in the discussion paper as a way of further articulating some of the challenges of conceptualising change in patterns of activity.

## A Day on the Ward

There are a number of staff roles on Ward 13. The Ward Manager deals with the management of staff and patients. The Ward Coordinator manages clerical tasks, record keeping, and arranges appointments and procedures for patients. Doctors diagnose and refer patients, prescribe medicine, and complete the paperwork for patient discharge. The Staff or Senior Nurse's primary responsibility is the medicine round, but also leading a team of nurses. Nurse Practitioners conduct observations, deliver treatments, administer medicine, and assist with patient care. Health Care Assistants provide patient care (helping patients get washed and dressed), food provision, and keep track of and

regularly 'turn' patients (so that they don't get bed sores). The Housekeeper makes hot and cold drinks, and assists with meal times and general tidying up. The Pharmacist checks Doctors' prescriptions, prescription histories, completes orders for discharged patients and delivers medicines. The Pharmacist Technician supports the pharmacist and manages the stock in the ward medicine cupboard. Ward 13 hosts twenty four patients, as well as family and friends during visiting hours, and throughout the day and night staff from other department in the hospital who need to collaborate on specific issues.

At 7.15am the early shift begins with a handover from the night staff to the day staff at the Nurses' Station. As soon as this is completed the Nurses and the Health Care Assistants (HCAs) work fast to get as many of their jobs completed before breakfast as possible. The HCAs wake the patients up and help those who are able into chairs, ready for breakfast and so that they can strip and make the beds. The Staff Nurse begins the morning medicine round and the Nurse Practitioners begin their morning observations.

At 8.30am a bell rings to signal the arrival of the breakfast trolley and everybody, barring the Doctors (who have yet to arrive on the ward) and the Ward Coordinator, down tools to distribute hot meals to the patients. The Housekeeper makes toast, tea and, coffee for the whole ward.

At 9am three Doctors arrive on the ward and with the Ward Manager and Ward Coordinator, and if they are available, with the Occupational Therapist, the Physiotherapist, and the Dietician (who work across a number of wards) hold the morning 'Board Meeting' where they talk through each patient's condition and situation in preparation for the Doctors' daily 'Ward Round'. The duration of this meeting and subsequently the duration of the Ward Round depends on how well the Doctors know each other and on how acquainted they are with the patients. Because each of the three doctors (Consultant, Registrar, and Junior Doctor) is on different rotations, across different departments, and for a varying number of weeks, they rarely work together for more than five days. In particular the Consultant who rotates every week has to familiarise themselves with a new set of patients (more or less) at the beginning of each rotation. As a result both Board and Ward Rounds are considerably faster on a Friday than they are on a Monday. For example, Monday Board Rounds can last until 10am, and the Ward Round until 2pm, whereas on a Friday, the Board Round can be finished in 10 minutes and the Ward Round finished by 10.30am. The timing and duration of the Ward Round has a particular significance for discharges. The Junior Doctor can only begin writing the discharge letters after the Ward Round has finished. This can take up to one hour per letter and each one is required to be checked by a Pharmacist and submitted to the hospital pharmacy dispensary before 5pm so that the medicine can be dispensed and the patient discharged before the pharmacy closes at 5.30pm. Any discharge letters and prescription submitted after the 5pm cut off period have to be dealt with on a case by case basis and could (in extreme circumstances) result in the patient staying for another night. The Senior Nurse usually completes the medicine round by 10am and the Nurses continue with observations and treatments, whilst the HCAs continue with patient care.

At 12.30pm this activity is again interrupted by the ringing of a hand bell which signifies an important change in activities. Again, all staff down tools and tend to the pressing issue of serving the lunch so that it is still hot when it reaches patients. At this time the Senior Nurse begins the lunchtime medicine round. After lunch there is a short window for Nurses and the HCAs to complete one last round of patient care and observations before visiting hours begin at 2pm.

At 5pm visiting hours end to prepare for the arrival of dinner. (Visitors are no longer allowed to stay on the ward during meal times. 'Protected mealtimes' have been shown to improve patient recovery.) At this time there is a third medicine round, followed by another hour of visiting time between 7pm and 8pm.

At 8pm milky drinks are served and the day shift hands over to the evening shift, who go on to begin the final and evening medicine round before patients are put to bed.

Time	Shifts	Meals	Drs	Staff / Senior Nurse	Nurse Practitio ner	Health Care Assistant s	Houseke eper	Pharmaci st	Visitors
7am	Early			Handove r	Handove r	Handove r			
8am			Board round	Board round	Board round	Board round	Board round	Board round	Board round
9am		Breakfast	Ward round	Medicine Round	Observat ions	Breakfast	Toast and Drinks	Check Prescripti on	
10am			Ward round	Observat ions	Observat ions	Patient Care	Houseke eping	Prescripti	
11am			Ward round	Observat ions	Observat ions	Patient Care	Houseke eping	Спеск Prescripti	
12pm			Ward round	Observat ions	Observat ions	Patient Care	Houseke eping	Prescripti	
1pm	Late	Lunch	Discharg e Letters	Medicine Round	Observat ions	Lunch	Lunch		
2pm			Discharg e Letters	Observat ions	Observat ions		Houseke eping	Discharg e Prescripti on	Visitors
3pm			Discharg e Letters	Observat ions	Observat ions	Patient Care	Houseke eping	Discharg e Prescripti on	
4pm			Discharg e Letters	Observat ions	Observat ions	Patient Care	Houseke eping	Discharg e Prescripti on	
5pm		Dinner		Medicine Round	Observat ions	Dinner	Dinner		
6pm				Observat ions	Observat ions	Patient Care			
7pm				Observat ions	Observat ions				Visitors
8pm	Night	Drinks		Handove r	Handove r	Handove r			
9pm				Medicine Round	Observat ions				

# Spot the Difference

The above description and representation of a day on the ward present only a snapshot and an outsider's reconstruction of what happens during a day on the ward. But what is clearly noted by all five participant staff members who were interviewed is that this routine is fixed, stable and does not

change. Or perhaps more carefully, that there are only minimal variations in this routine between weekdays, weekends, between seasons, and at different times of the year:

Interviewer: Does [the daily routine] differ at all, say at the weekend?

James [Ward Manager]: No, not at all it's exactly the same. The only difference is, the ward round may only include the new patients at the weekend... the doctors will come and just see the new patients, any poorly patients, anyone with concerns, or anyone with potential for discharge home..."

What is more is that staff claim that this basic routine has not changed despite the ward moving from a short stay ward to a long stay ward and that it is now dealing with a completely different set of medical conditions. In fact, the ward has changed from discharging on average 10 and up to 15 patients every weekday (many fewer patients are discharged at the weekend), and having a maximum stay of 72 hours, to on average discharging 4 patients every day and having an average patient stay of 5 nights (though some patients have stayed on the ward for as long as a month!). This significant change in 'throughput', patient flow, bed management and demand, is described by the staff as a change of 'pace':

"It's a completely different pace. It's [still] busy, but you've got five things on your mind rather than twenty five things on your mind. It's a different pace mentally really. It's a different pace physically because of the less patients coming in and being discharged, but it's more of a metal pace. It's hard to explain quite what I mean... (James)

"Like James says, the pace is just different..." (Jane)

Despite this change of 'pace', and significant shift in the length of stay, staff on Ward 13 claimed that the typical day outlined above has not changed. So what has changed? And what is different? Is it, and as the staff describe straightforwardly that the patient's condition determines length of stay? Has the 'speed' at which staff work slowed down? Or is there another way to conceptualise difference in these patterns of activity? One experiment in trying to conceptualise this difference is to examine the discharge process in more detail.

## **Changing Flexibility in the Discharge Process**

The current discharge process on Ward 13 begins during the Board Round where patients are first identified for potential discharge. During the Doctors' Ward Round, the patient's condition is assessed and, if they are deemed to be well, patients are told there and then that they are able to go home. However, there follows a sequence of activities that have to be completed before a patient can be discharged: the Ward Round first has to be completed and Doctors have to see all patients on the ward; the Junior Doctor has to complete all of the discharge paperwork and letters; these then have to be checked by the Pharmacist before prescriptions are ordered; the pharmacy has to prepare prescriptions for all wards (all usually submitted around late afternoon); these have to be delivered back to the ward; meanwhile transport has to be arranged for the patient (during a peak time for patient transport and peak travel more generally) and the Occupational Therapist and other interested parties have to agree and sign off that the patient is indeed fit for discharge.

Currently this is a rigid sequence of activities. Staff explanation for this rigidity is that it is due to both the predictability and the seriousness of the patients' conditions on this now cardiac ward:

"It is because of the illness. Cardiac is different... There is bed demand for every speciality don't get me wrong, but medicine is the one that actually requires more beds than any other speciality. So as a consequence there is more pressure to create this bed-flow throughout the division..." (James, Ward Manager)

This quote from James demonstrates the prevailing narrative that the 'type' of patient, or the patient condition determines bed demand. He states that medical wards require more beds than any other speciality. However it also shows us that wards receive more and less pressure (from bed managers) to create bed-flow depending on the kind of ward they are working on. It seems that on medical wards that there is a perceived increased flexibility in being able to adjust and adapt the discharge process. Kate explains:

"[When the ward was short stay...] If someone could go home, ideally... what the perfect patient would say was: "Well I just live down the road my wife's going to come and collect me and I'll come back at 6pm to collect my tablets." As long as they didn't need anything in between that was fine, they'd just come back and pick them up. But [now that the ward is short stay] when you have patients being told on the rounds at quarter past nine that they are going home today and they are still sat there at quarter past six, waiting for things, and they are looking at you – things are out of your control, because as a nurse you get everything in place but it depends how quick the doctor is writing their discharge letter, and how long pharmacy take, and it's kind of out of your control, bearing in mind the doctor who was doing the discharge letter was also doing every other job for the ward." (Kate, Staff Nurse)

This difference in the flexibility of the discharge process can also be seen in the following discussion with Jane:

Interviewer: [Can you describe the discharge process and how it has changed?]

"Ward round. They do the TTO, which is the discharge letter. Pharmacy. Pharmacy tech gets involved, goes down and gets the prescription, someone there dispenses it and brings it back up. Very much the same as medicine.

Interviewer: It was the same?

Yeah so it's pretty much the same. Maybe a little bit faster before because obviously the flow was at a bigger pace.

Interviewer: And would you [discharge the patients] individually when you were medical?

The amount that we had, medical, I would bleep every time there was one. Our Pharmacist Tech was quite quick, and that's how she liked it... If I hadn't have bleeped after every one the bed managers would have been ringing up saying 'well why haven't you bleeped pharmacy and told them that you have all these letters?' So again that speeds the process up...

Interviewer: But now you can do them in batches?

Yeah. Because he is a lot quicker so it seems pointless to beep the Pharmacist one at a time when he can do three or four." (Jane, Ward Coordinator)

Whilst respondents struggled to identify this as a substantial difference in the working day, there is clearly an important difference between discharging patients individually in batches that matters for when processes involved in discharge, including having all the correct sign offs, ordering, preparing, and retrieving prescriptions from the pharmacy, arranging transport, and so on. When these differences were identified they were usually explained as a particular member of staff being a 'faster worker', or the patient being 'less complicated'. They were not explained as significant changes to the working day, to what people did, or the sequences in which people did them.

From this empirical example, it seems to me that there are three ways for thinking about how this change from short stay to long stay on the ward has mattered for patterns of activity on the ward and therefore bed demand.

A first way to think about how the ward has changed (and how this matters for bed demand and therefore the energy demand of the institution), is that the ward now looks after a different 'type' of patient. This is the narrative given by staff. The particular condition requires a longer stay (for medical reasons), so patients stay on average 2 days longer, and demand for beds and bed-flow is reduced. Everyday routines and practices on the ward, such as doing the ward round, prescribing medicine and practices around mealtimes have changed minimally, if at all. This approach reduces patient stay to a medical problem and limits the kinds of questions we can ask about how working arrangements in the hospital effect demand for energy.

A second way to think about change would be to focus less on the patient's condition as the sole determinate of patient stay and instead to examine how the pattern of activities, both on the ward, and more broadly in the rest of the hospital and beyond effect durations of patient stay, and therefore bed-flow. One question would be to ask how practices related to the discharge process are different, or have changed as the ward has moved from short stay to long stay. Usefully this approach would allow us to examine how the sequence of activities from the Ward Round, writing the discharge letters, checking prescriptions, and ordering from pharmacy and so on has changed. The problem is that according to staff this sequence has not changed. Indeed the practices have not changed, and the timings of those practices have not changed. In both cases the Junior Doctor has to wait for the Ward Round to finish before he can begin writing letters. In both cases the Pharmacist can check a prescription for discharge after the Junior Doctor has written it. The Junior Doctor still writes letters in the afternoon and the Pharmacist still checks them in the afternoon, depending on the duration of the ward round.

Building on this second position, what is required a way to capture differences in the way that practices hang together that does not only explain sequence of activities and changes in practices themselves. We need a way of understanding different kinds of changes in the ways in which everyday practices hang together. A third way to think about this difference might be not to ask how practices on the ward have changed, or how the sequences of activities in the discharge process have changed but to ask about differences in the way that these practices hang together. Whilst

sequences of activities remain the same, the flexibility of these practices can be seen to be different in each case.

Jane explained above, how previously, when the ward was a more general medical and short stay ward, that she would bleep the Pharmacist every time a discharge letter had been written by the Junior Doctor to move the discharge process along, but that now that it seems pointless to interrupt the Pharmacists' other work to get him to do just one. Now she only bleeps the Pharmacist when there are three or four or all of the discharge letters completed. This appears to be not so much a change in the practices on the ward, or a change in the sequence of activities, but a change in the flexibility of the discharge process. Whilst the discharge process for long stay is rigid and fixed, the discharge process for short stay appears to have been much more flexible and adaptable.

Indeed it seems that hospital managers have already identified this kind of flexibility as a way of intervening in the discharging process, and are piloting what they are calling 'Pharmacist Led Discharge', whereby as soon as a patient is identified as being able to go home (rather than waiting for the Ward Round to finish, and for the Junior Doctor to complete all discharge letters), the Pharmacist is able to write the letter and order prescriptions so that they are prepared in time for the Doctor to sign off early, potentially overcoming situations where a patient is approved for discharge early in the morning, but has to wait until the end of the day to be able to go home. The implication for thinking about change is that thinking about changing flexibility in the way in which these different activities hang together could be important for demand for beds and therefore demand for energy and other resources.

## **Concluding Questions for Conceptualising Change**

If we follow the premise that changing demand (for energy) relates to changing practices, then what happens when demand changes but practices do not?

What kind of change in, between, or of practices is required to understand changes in demand?

To what extent is it analytically appropriate to identify change where participants or respondents do not?

What further concepts are required to more subtle changes in patterns of activity?

If we take the above example forward, how methodologically would it be possible to study changing forms of flexibility or rigidity in patterns of activity?

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