How can medical education be improved for the benefit of the patient?

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Friday morning. The night had been punctuated by mechanical beeps and happy chatter of staff at 3, 4 and 5 in the morning. A ceramicky rattle approaches - the breakfast trolley with toast and cornflakes. I feel a little guilty, as my 3 ward companions get nothing. Scans had been mentioned and the doctors might want them to fast, a nurse had said overnight. I pick up the butter knife, but quickly put it down again. At the end of my bed a computer glides in on squeaky wheels. A group of medical staff coalesce around it. I start to greet them but they are already interacting in a fascinating alphabet language. I hear U and E, LFT, MRCP, CRP and CBD. I recognise a few – the consultant from yesterday and a couple of medical students commissioned to speak to me later in the day. They are behind the main group and mostly looking out the window at the sunny day. I don't blame them. Vigorously typing on the keyboard is the tired looking redhead who'd said one day it was her first year as a doctor. Katie, I think. She seemed nice. A few others seemed older and were wearing scrubs and hats. The surgeons? Or were they all surgeons?

"This is the biliary colic and deranged LFTs" one announces, I think to introduce me. Deranged? I imagine myself rampaging around the ward with staring eyes and chuckle at the image. A stern glance from the consultant probably confirms his suspicions of derangement and he asks one of the flock if I "have capacity" as if I am a jug, or a concert venue. I glance down, hoping to look more sane. My untouched cornflakes are sodden blobs in the shallow bowl. One bescrubbed figure suggests that the nurse would know. There is none here, as they hadn't waited for the nursing handover to complete. I have heard the nurses complain about this practice.

The consultant examines me carefully, thoughtfully, and nods when I wince. I hoped he might announce his revelations for documentation but one of the blue hatted ones is typing furiously and seems to have understood. Another enters and announces that "the first one is asleep." The consultant straightens, says I'm doing well, a scan showed a shadow on my kidney but I'll be discharged later if Neurology is happy. Neurology? He must still think I am deranged. A shadow? Does later mean today? I think, but he is gone. I wish I'd remembered his name from yesterday. My daughter will ask me later.

Katie is left and starts to manoeuvre the computer out. I ask about Neurology and the scan and she peers into the screen. An incidental mass, she reads. It's Urology they want; she will try to find one of them later. Does that mean cancer? An operation? Am I getting home today? Katie shrugs apologetically, promising to do her best to find out. I look down again at my soggy cornflakes. I wonder if Katie had breakfast.

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Medical education is a rapidly changing element of healthcare. Didactic lectures are no longer the mainstay with recent years introducing high fidelity simulation, virtual reality (VR), escape rooms, problem based learning and a sharp rise in online learning, particularly post pandemic.[1] These novel methods have been extensively researched and implemented, and it is an exciting time to be involved in medical education. As much as the landscape changes however, there is an element that remains unaltered – the demonstration of face to face patient contact in scenarios such as outpatient clinics, theatres and ward rounds.

Is there merit in getting back to basics with medical education and focussing more on the educational value of a well executed ward round? Daily rounds are a crucial aspect of patient care and communication, vital in making shared healthcare decisions in a multidisciplinary fashion, with huge impact on length of stay and timely patient care.[2] Furthermore, as the main and sometimes only contact with their treating team during any given day, the psychological impact of the ward round experience for patients is important. Medical students and resident doctors planning a career taking care of inpatients will know that ward rounds will form one of their most frequent clinical activities. Training doctors to be excellent leaders and participants in ward rounds is therefore vital, yet ward rounds are often perceived as having limited educational value.[3]

Why is this the case? Contributing factors may include increasing workloads and time pressures, the impact of the European Working Time Directive, the dismantling of the traditional "firm" structure reducing team familiarity, and a reduction of medical student and foundation doctor assignment to ward rounds in favour of task completion. Frequent interruptions and perception of prohibitive hierarchies can also decrease educational value.[3]

How then can ward round practice be improved to increase education value and benefit the patient? Some potentially negating factors cannot be eradicated in the modern NHS: modern rotas with frequently rotating staff, high workloads and the use of digital notes. They can, however, be mitigated in various ways.

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[1] Zhang P, Li X, Pan Y, Zhai H, Li T. Global trends and future directions in online learning for medical students during and after the COVID-19 pandemic: A bibliometric and visualization analysis. Medicine (Baltimore). 2023 Dec 15;102(50):e35377. doi: 10.1097/MD.0000000000035377. PMID: 38115375; PMCID: PMC10727559.

[2] Ahmad A, Purewal TS, Sharma D, Weston PJ. The impact of twice-daily consultant ward rounds on the length of stay in two general medical wards. Clin Med (Lond). 2011 Dec;11(6):524-8. doi: 10.7861/clinmedicine.11-6-524. PMID: 22268301; PMCID: PMC4952328.

[3] Khalaf Z, Khan S. Education During Ward Rounds: Systematic Review. Interact J Med Res. 2022 Nov 9;11(2):e40580. doi: 10.2196/40580. PMID: 36285742; PMCID: PMC9685505.

Medical students and resident doctors must spend time on ward rounds, and members of the ward round must recognise a collective responsibility towards education. Foundation doctors must be enabled to attend and become involved in ongoing patient care and decision making, instead of working in a merely task completion capacity to cope with demand. Where possible, job plans for doctors of all grades and teaching schedules for medical students must allow adequate time for ward rounds during the week; they should not be seen as a rushed adjunct to what is seen as the main business of the day. Whilst modern rotas involve frequent rotations between teams, coordinators must aim for as much consistency as possible when staffing ward or speciality teams. This provides familiarity for patients and ward staff alike, and when learners and educators know each other better, education value improves.[2] Adequate introductions must be made both within the team and to patients.

The increasing use of portable computers and digitalised patient notes brings new barriers to good practice: dependency on computer availability, reducing the responsibility of processing clinical data to the person operating the computer, and the temptation to have a data based and less patient centred clinical encounter. There are also however important advantages to be capitalised on for patient benefit, for example increasing efficiency with the use of prepopulated ward round templates and checklists. A 2025 systematic review and meta-analysis examined ward round interventions aimed at improving patient outcomes and found that checklist interventions significantly reduced length of stay, improved overall documentation and did not reduce ward round duration.[4] Patient perception of their care has also been seen to improve with the use of ward round checklists.[5] Checklists or other clinical decision support tools are recommended in NICE evidence on standardised ward rounds.[6] This is an important concept that can easily be implemented in our increasingly screen-centric medical practice. Checklists can often be filled in quickly at the bedside, or partially populated prior to the patient encounter, allowing more face to face communication with patients.

The move towards computer based ward rounds arguably reduces involvement of every team member and so other opportunities should be identified. Perhaps a simple written proforma with patient diagnosis, care plan for the day and estimated date of discharge could be completed by junior members of the team and reviewed by the lead clinician before being given to the patient. This would ensure that ward round communication is

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[4] Treloar EC, Ey JD, Herath M, Edwardes NPR, Edwards S, Bruening MH, Maddern GJ. Optimizing ward rounds: systematic review and meta-analysis of interventions to enhance patient safety. Br J Surg. 2025 Mar 28;112(4):znaf041. doi: 10.1093/bjs/znaf041. PMID: 40202092; PMCID: PMC11979594.
[5] Read J, Perry W, Rossaak JI. Ward round checklist improves patient perception of care. ANZ J Surg. 2021 May;91(5):854-859. doi: 10.1111/ans.16543. Epub 2021 Jan 18. PMID: 33459481.
[6] National Institute for Health and Care Excellence (NICE) (2018) *Emergency and acute medical care in over 16s: service delivery and organisation. Chapter 28: Structured Ward Rounds.* NG94. Available at: NICE Guideline Template

adequate enough for all members of the group to understand and would give the patient a tangible reference tool to understand their clinical course.

Whilst purely increasing time at the bedside is not necessarily associated with improved patient experience or concordance between patient and medical team on care plan,[7] the time we do have to spend with patients must exemplify thorough assessment, good communication and shared clinical decision making. In a time pressured NHS we must often commit to quality rather than quantity. There is no easy answer to the time pressures all hospital teams work under, but even one meaningful moment of education during a ward round can have a positive impact on learners and patients alike.

Other areas for improvement may be the use of a pre-round away from the bedside – a good opportunity for students or resident doctors to present cases or explore treatment options in a setting that allows discussion of sensitive topics away from what is often an open bay. This practice has been seen to be preferable by physicians and promoting good time management.[8] A pre-round meeting also facilitates adequate team introductions, and assignment of roles. The senior clinician may offer a more junior trainee the opportunity to lead some patient encounters and complete a case based discussion, or in the case of a well staffed ward round with more than one specialty trainee it may be possible to assign one to teach students and foundation doctors during the round. Teams should strive for a culture of encouraging and valuing input from all grades of medical, nursing and allied staff.

This discussion can only touch on some ways in which ward round practice can be enhanced for the enrichment of medical education. One practical guide to explore the topic further is the 2012 RCP guidance on principles of best practice in ward rounds which advises on structuring the ward round, the role of patients and carers, and managing decisions and tasks.[9]

Despite the dismantling of traditional firm structures the study of medicine remains in many ways an apprenticeship. When good practice is modelled, good habits become the norm. As resident doctors and students grapple with improving clinical expertise under an ever-increasing workload, the demonstration of high clinical standards and seizing of teaching moments on ward rounds and other patient encounters is vital.

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[7] Ratelle JT, Herberts M, Miller D, Kumbamu A, Lawson D, Polley E, Beckman TJ. Relationships Between Time-at-Bedside During Hospital Ward Rounds, Clinician-Patient Agreement, and Patient Experience. J Patient Exp. 2021 Apr 8;8:23743735211008303. doi: 10.1177/23743735211008303. PMID: 34179432; PMCID: PMC8205390.

[8] Gross S, Beck K, Becker C. Perception of physicians and nursing staff members regarding outside versus bedside ward rounds: ancillary analysis of the randomised BEDSIDE-OUTSIDE trial *Swiss Med Wkly.* 2022; 152, w30112

[9] Royal College of Physicians, Royal College of Nursing. Ward rounds in medicine: principles for best practice. London: RCP, 2012.

When excellent care is modelled, medical education is improved to the benefit of the patient. After all, 'the patient is the most important member of the care team.'[10]

[10] Quote from Donald M. Berwick, former President and Chief Executive Officer of the Institute for Healthcare Improvement