What do you think will be the biggest change in medicine by the time you graduate, and why?

The biggest change in medicine by the time I graduate? Well fingers crossed that will be in 3 years' time so it'll have to be somethingfairly imminent!Scientific research is producing a constant stream of new discoveries; a potential new treatment for HIV^[1], technologyenabling even earlier diagnosis of cancer^[2], and even a vaccine for Ebola^[3]that I am sure could wellhave a significant impact on the field of medicine over the next few years. However what has struck me the most during my various placements both in GP surgeries and hospitals is the increasing need to integrate Primary and Secondary Care, shifting careinto the community and improvingsocial care. At one point during recent work experience there were threepatients on the ward medically fit for discharge, but in each case thesocial situation and home care availability resulted in an extended stay in hospital, commonly known as 'bed-blocking', preventing the admission and treatment of other patients. ^[4]In my opinion the laying down of foundations to gradually begin to integrate primary and secondary healthcare over the next few years will be the biggest and most valuable long-term change to medicine.

The term 'bed-blocker' is used to describe an individual who has to remain in hospital because they have no other suitable place to go. In January 2015 half of hospitals reported that around 10% of beds were occupied by 'bed-blockers', with one individual at Addenbrookes Hospital remaining an inpatient for 72 days after she was declared medically fit for discharge. [5] Not only does an extended stay in hospital cost the NHS valuable time, money and resources, it prevents the admission and treatment of other patients as well as putting medically fit patients at risk of developing nosocomial illnesses. Inadequate social care has been identified as a common cause of 'bed-blocking' with an increasing shortage of beds available in care and nursing homes along with reduced funding for support in the home, an increasing problem within our ageing population. Despite the negative publicity towards the Secretary of State for Health, Mr Hunt's, recent proposal of 24/7 access to healthcare, his plans to transform services offered by General Practitioners over the next 5 years^[6] could, in my opinion, have a positive impact on this current hospital bed shortage. Recent analysis suggests that around 15% of patients seen in A&E departments could have been treated by their GPs. [7] Mr Hunt's proposal of 8am to 8pm every day access for all patients and same day appointments for over-75s^[8] could enable more patients to be seenin the community, reducing the need for hospital treatment and the number of unnecessary admissions as well as increasing hospital bed availability.

In October 2014 Simon Stevens published his Five Year Forward View^[9] for the NHS aiming to dissolve the barriers between the 3 traditional aspects of healthcare (hospitals, GP surgeries and the community) and improve patient outcomes. One of his proposals is the introduction of Multispecialty Care Providers (MCPs), community based practices that will employ a wider range of staff than GP surgeries including consultant physicians, senior nurses, pharmacists, social workers, psychiatrists and geriatricians as well as expanding diagnostic services. MCPs will specifically target the needs of elderly patients and patients with chronic complex illnesses with the aim of shifting the majority of outpatient care from the hospital to the community. Already across the country small pilots are in progressto test the waters of this proposal with initially promising signs of success. The Royal Manchester Infirmary has developed a system in which patients can undergohaemodialysis at home^[10], alongside

various other schemestesting the provision of services including blood transfusions, chemotherapy and gynaecological procedures^[11]. So far these changes are having the desired effect of reducing healthcare costs and hospital visits whilst improving patient satisfaction with community-based treatment. Mr Steven's long term vision for this model is that 'In 5-10 years healthcare currently delivered in outpatient departments will be available in the community through MCPs'[12]. In-practice pharmacists are also proving advantageous within general practice^[13]as they can provide many of the same clinical skills as a GP. An independently prescribing pharmacist has the capacity to assess social care needs, monitor patients with chronic conditions and those taking high risk medications, liaisewith hospital pharmacists to coordinate discharge medication, and review pathology results as well as providing immunisations, spirometry, phlebotomy, diabetic foot checks, cardiovascular risk assessments, dementia screening and falls risks assessment. In-practice pharmacists canthus play a major role in increasing access to healthcare and reducing GP waiting times as well as A&E admissions and medicine wastage. Over the next three years funded pilots studies are being carried to assess the feasibility of introducing pharmacists into General Practice with the hope that after three years GP practices will see an improvement and continue to employ in-practice pharmacists. [14] Studies are revealing that the quality of GP minor surgery is superior to that previously thought, and that whilst NICE guidelines state that GPs should not remove malignant skin lesions, when asked to carry out such a procedure there was an average complete excision rate of 88-97%. [15] So farthese figures are suggesting that GP minor surgery can be very effective and that maybe more could be carried out within the community.

However a crucial factor in the success of both Mr Hunt's and Mr Stevens' visions for the NHS is the number of qualified GPs. In order to shift care into the community the hours of access to healthcare needs to be increased, which can only be achieved with sufficient numbers of staff and resources. Recent figures show applications for GP training posts arefalling, with the number in 2015 being 6.2% less than last year^[16] and in 2014 only 25% of medical students chose to specialise in general practice, raising doubts that Health Education England will be able to fulfil its promise that 50% of medical students will choose general practiceby 2016.^[17] In order for primary care and secondary care to become integrated within the community the number of qualified GPs needs to increase, a challenge which medical schools are certainly taking on, slightly too much in my opinion; the length of my speciality placements has been cut short to integrate yet another GP placementintothecurriculum. Yet this may prove to be an effective technique in promoting General Practice as an appealing career and increasing its training capacity over the years leading up to my graduation.

Sir Bruce Keogh,NHS England's National Medical Director, recently stated, "If the NHS continues to function as it does now, it's going to really struggle to cope because the model of delivery and service that we have at the moment is not fit for the future" and I completely agree. As a medical student I spend a lot of time observing both primary and secondary care in action and see the daily challenges faced in trying to treat and accommodate patients in the correct environment. By the time I graduate I think the biggest change in medicine will be the implementation of the outlined proposals and the gradual, long term improvement in patient, and staff, satisfaction.

- [1] NHS Choices (2015) **Hiding HIV virus 'flushed out' by skin cancer drug** [online]. Available at http://www.nhs.uk/news/2015/08August/Pages/hiv-flushed-out-by-skin-cancer-drug.aspx [Accessed 06-08-15]
- [2] Siddiqui, S (2015) Simple breath test to diagnose lung cancer. GP. 23 Febuary, p.12
- [3] BBC News (2015) **Ebola vaccine is 'potential game-changer'** [online]. Available at http://www.bbc.co.uk/news/health-33733711 [Accessed 06-08-15]
- [4] Royal Preston Hospital, Ward 24 (July 2015)
- [5] The Guardian (2015) 'Bed-blockers': the fit-to-leave patients deepening the hospital crisis [online]. Available at http://www.theguardian.com/society/2015/jan/07/-sp-bedblockers-worsening-nhs-hospitals-crisis [Accessed 06-08-15]
- [6] Roberts, N. (2015) GPs key to NHS 'revolution'. GP pp.8
- [7] The Guardian (2015) 'Bed-blockers': the fit-to-leave patients deepening the hospital crisis [online]. Available at http://www.theguardian.com/society/2015/jan/07/-sp-bedblockers-worsening-nhs-hospitals-crisis [Accessed 06-08-15]
- [8] Roberts, N. (2015) Hunt to lead seven day GP revolution. GP pp.3
- [9] NHS England (2014) **Five Year Forward View** [online]. Available at https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf [Accessed 06-08-15]
- [10] NHS England (2013) **The NHS belongs to England: a call to action** [online]. Available at http://www.england.nhs.uk/wp-content/uploads/2013/07/nhs-belongs.pdf [Accessed 06-08-15
- [11] Kaffash, J. (2015) GP-led groups to offer dialysis and gynaecology in integration drive. **PULSE** pp.30
- [12] Vaughan, V. (2015) Simon Stevens' five-year mission. The commissioning review pp. 10-12
- [13] Sharma, R., Muir-Taylor, J. (2015) The benefits of working with an in-practice pharmacist. **GP** pp. 36-37
- [14] Hakin, B. (2015) Letter: Launch of innovative £15 million pharmacy pilots in general practices
- [15] Chan, S. (2015) Audit proves quality of GP minor surgery. GP pp. 11
- [16] Zarkali, A., Ghafur, S., Bewick, M. (2015) Why are trainees not choosing general practice? **The British Medical Journal** pp.5-6
- [17] Tooth, D. (2015) Inspiring the next generation. **GP** pp. 21
- [18] NHS England (2015) **We must meet the demands of a growing ageing population Sir Bruce Keogh** [online]. Available at http://www.england.nhs.uk/2015/01/20/meet-demands-ageing-pop/ [Accessed 06-08-15]