

## **Why hospitals and ICBs are seeking new intel to find hidden high-risk patients on waiting lists**

**Clinicians are demanding a more detailed understanding of the risks facing patients across the entire waiting list, to target scarce resources and to prevent added demand, writes Dr Mark Ratnarajah, NHS paediatrician and UK managing director, C2-Ai.**

Clinical teams continue to work relentlessly to get through the elective backlog. I see it every day with frontline colleagues, and with clinical leads I speak to at organisational and regional levels.

Their aim is to help as many patients as possible in the face of a highly complex and enduring peri-pandemic challenge.

Many are doing everything they can to increase capacity to try to help. From creating more theatre capacity, to drawing on the independent sector, to establishing specially focussed weekends where surgeons come in to treat and operate on patients with specific conditions.

I recently heard from one integrated care board chief executive, who explained how the organisation was working to make the most of surgical capacity, and how it was prioritising patients with clinically urgent and time-critical conditions, including cancer, as well as patients who have been waiting a very long time. In line with national priorities, this is reflective of work in many regions, trying to urgently help some of the most vulnerable patients.

### **Addressing demand, not just supply**

With that same mission in mind, there is also now an increasing appetite to better understand the demand component of waiting lists, in addition to opportunities to maximise supply. And for good reasons.

Strong evidence is emerging that patients are becoming increasingly unwell as they wait longer. It is something more and more NHS customers have asked us to examine, and the data consistently confirms that a large number of patients are deteriorating as they wait. That is not just a problem amongst high acuity patients, it is across the board, for all high-volume specialties.

In many cases even those who might have been considered routine, and low risk at the point of their referral based on their procedure or surgery priority score, are becoming significantly more unwell because of their comorbidities.

This also means that for some hospitals and regions, waiting lists have actually become longer, with average complexity having gone up, and the range of complexities faced by patients on the waiting list also increasing.

With more complex patients to deal with on the waiting list, clinicians are concerned that some of those patients will inevitably decompensate, and present to A&E, at which point they will require a much more protected course of treatment, referrals for multiple problems, and face worse outcomes.

This could also directly limit the ability to deal with the backlog itself, and lead to financial challenges. Integrated care systems are being financially incentivised to exceed elective surgical capacity, as well as facing penalties for underperforming against pre-COVID targets, all at a time when resources are already stretched, strikes are continuing, and doing more with less is an extremely difficult and almost impossible task.

Hospitals and ICSs are therefore recognising that doing nothing, or doing business as usual, even with increased supply, is not sustainable and may create more problems.

So, what are they calling for?

## **Risk stratifying the entire waiting list**

Entirely new ways to manage patients on waiting lists are emerging. National priorities are still in focus. But in addition, regions, trusts, and peri-surgical teams are searching for a much more detailed and granular understanding of the needs, and importantly the risks, of all patients on waiting lists.

They are calling for intelligence on what is coming, and they want to know if individual patients have gotten worse, or if they are at risk of getting worse. In doing so, they are unveiling hidden risk on their lists.

They want to target interventions to patients at most risk, to optimise the care of those patients ahead of their surgery, and focus theatre time.

This is about using data to make surgery more efficient and effective, with increased visibility of those who are decompensating, rather than a broad-brush approach based solely on using a patient's time on the waiting list, as a measurement for when something needs to be done.

The opportunity is to reduce mortality and complications, and prevent people dropping off waiting lists and presenting to the emergency department. And for patients on the list, surgical teams can minimise lengths of stay, convert patients to day cases, and therefore curtail demand and increase throughput.

## **Emerging models – blueprints ready to scale**

This opportunity is being realised. We are working with dozens of trusts in more than a third of ICS regions across England who are doing ground-breaking work by being able to accurately identify patients at risk of complications or death as they wait.

In one NHS England funded initiative, surgeons have saved many thousands of hours by using an AI-based model to risk stratify hundreds of thousands of patients each week. This is helping peri-surgical teams to make informed and consistent decisions on prioritising patients for surgery according to greatest clinical need. A national health economics unit evaluated that the project has freed up at least 125 bed days per 1,000 patients on waiting lists, enabled substantial reductions in emergency admissions, and has seen a 27% reduction in long-waiters and the highest urgency patients, within a matter of weeks of deployment.

And in other cases, more is being done to target patients to keep them well as they wait. Using the same AI technology, one region is leading the way in this, giving clinical and surgical teams a complete understanding of patients likely to deteriorate, and showing them specific risks and how best to focus their intervention whilst empowering the patient at the same time. Targeted prehabilitation resulting from this intelligence is helping to prevent deterioration and prepare patients for surgery, with a mitigation of avoidable harm measured alongside reductions in length of stay, and many patients being discharged within a day.

Scaling these initiatives could go a long way to preventing additional demand from avoidable complexity, as the elective challenge remains a national priority. As one lead surgeon involved continues to stress, the principle of this is simple: Treating the right patient, in the right place, and at the right time.