2 May 2023

Greetings HITSA Members!

Gareth and I travelled to Orlando (Florida) for the AACD annual Peri-operative Leadership Summit in March. This meeting is presented by a group of enthusiasts (all trained anaesthesiologists) that manage many aspects of American operating theatres and also inspired the founding of HITSA. I am always blown away by the scale of the healthcare system in the USA. Angela Dell in her excellent 2018 PhD thesis on surgical resources in South Africa tallied up 1969 operating rooms in South Africa. Of these 1070 were in private sector hospitals, and 899 were in the state sector. There was unequal distribution with Gauteng having 500 of the private sector ORs and 211 of the state sector ORs, giving the province **36% of the rooms**, despite the province harbouring only **24% of the population**.

Compared to South Africa's 2000 operating rooms, the USA has 36 000 operating rooms in acute hospitals, and a further 16 000 operating rooms in ambulatory surgery centres. The population size of the USA is just 5.5 times that of South Africa, but their economy by GDP is 54 times larger. There is so much we can learn from this group - the top 25 USA hospitals have an average of 51 ORs per hospital, with the biggest having 85 ORs! The scale is enormous, and the benefits of improved management are then significant on a scale we struggle to fully comprehend.

Despite a very different reimbursement system, even compared to our private sector, many of the problems in the healthcare sector are shared. My key take-away points were:

1. **The impact of COVID on staffing and predicted future shortfalls of trained theatre personnel and anaesthesia work-force.** Prof JJ Pandit, who was an invited speaker from the UK, described exactly the same issues predicted in the UK and Europe. The UK is looking at a shortfall of 13 000 specialist anaesthetists by 2030, and like us already have a critical shortage of theatre trained nursing colleagues. The prediction is for increased demands from surgical services, and at current replacement levels there will be a critical skills gap in terms of anaesthesia and surgical nurses or technicians.

South Africa will no doubt feel the pull of their shortage, and this will impact our own challenge. We should be mindful of external factors, like this, when planning the future of our services.

2. A fascinating presentation by a colleague from the Bronx (New York) on implementation science. He spoke about learning organisations and how to create and foster them, a goal the Western Cape provincial department has been trying to achieve for more than ten years. He referenced this great editorial (click here) but my take-away from his presentation was that learning health systems actually implement what they measure, and this implementation is what makes learning organisations stand out. As the editorial points out, we all know the Deming PDSA cycle, but often this requires different, or outside groups, to be involved. Their contention is that the requirement for outside input interrupts the cycles, and what is favoured is continuous cycles where the learning/improvement activity is blended into "normal" work. Where I sit, we far too often watch the same issues play out year in, and year out, and implementation is our Achilles heel. One example shared from his workplace at Montefiore Medical centre, was an intervention to decrease the use of suggamadex, a very expensive reversal option for neuromuscular blockers (NMBs) in anaesthesia. They used the ASA practice guidelines, combined with the placement of neuromuscular monitors at every anaesthetic location; and they found that suggamadex had started to introduce complacency with their anesthesiologists, producing a practice of "over-dosing" with the NMB Rocuronium. This practice was then compelling the anaesthetists to use suggamadex rather than neostigmine to reverse the blockade. Their intervention lead by education, coupled with the monitors to monitor correct Rocuronium dosing, allowed them to reverse the use of suggamadex from 52% to 30%, with enormous cost savings. In our context of the South African state sector, a suggamadex utilisation rate of 30% is still huge (and incredibly costly). With further improvement cycles the team at Montefiore felt they could decrease this even further in future.

3. Agreeableness - a new term to me - came up time and again. I learnt that agreeableness is one of the big 5 personality traits, and is essential for good team functioning, and achieving organisational goals.

This characteristic may be critical to consider when appointing staff; it is not just the technical skills, but specifically these personality qualities, which are critical to elicit, when interviewing for a position. Staff with a high degree of agreeableness bring strong interpersonal skills, make great team-workers and have resilience. They find ways to get jobs completed because they put the needs of others first. A taste of the literature can be freely accessed by clicking here. My take-away from this was that even in enormous, high acuity operating systems the leaders are considering the personal attributes that they need to employ when hiring staff. **The key message:** find the technical skills that can be taught (often guaranteed by qualifications submitted) **but hire on the "soft" attributes.**

4. Two presentations by surgeons from Wisconsin reflected my involvement in CSSD departments, but it their case they took a systematic route to **understanding the number of excess/redundant instruments in surgical packs**, and then reduced their instrument numbers by almost 60%. At Somerset Hospital in Cape Town we asked surgeons to identify what was not needed, but in Wisconsin, Peter Nichol, a paediatric surgeon, had observers watch which instruments were used. Laura Bellaire, a paediatric orthopaedic surgeon looked at workload (on average processing 2000 instruments a day), at staffing mechanisms, and staff satisfaction in CSSD departments. She highlighted how few CSSD staff had formal training, the large number of agency staff, and how poorly they were paid. Not surprisingly they had a problem with absenteeism, which is probably correlated with the poor working conditions, low pay and the lack of "value" that the CSSD staff experience from their healthcare organisations. I did ponder whether CSSDs should not fall under the surgeons within a health system, since they have "skin in the game", and maybe we would see better funding, training, and staff retention if they lead and managed this critical department?

Next Tuesday, 9 May, is our monthly HITSA Townhall at 19h30 (click here to register). I will present our "CSSD Improvement Project" at New Somerset Hospital, explaining why an anaesthesiologist became involved (much like the Wisconsin surgeons), what we learnt, mistakes we made, and the difficulty with sustaining improvements over the 9 years.

I believe the experience I will share will appeal to all leaders in the peri-operative space, not only due to the fundamental role that a CSSD plays in every aspect of peri-operative services, but also highlighting the project management lessons we learnt.

The Townhall will end with a discussion of 2 papers (one of which can be accessed here) that I have found useful, over the past decade, and that heavily influence my approach to operating list management, especially the toughest bit of the day – the "end-of-list" decisions. Like many areas of Operating Room Management, there is good science, or metrics, that can guide our decisions; although almost everyone in an OR has an opinion, most opinions come without supporting evidence.

On Tuesday, 6 June, Dr Wayne Borchard has offered to spend an hour of his time with us. Wayne, who completed his PhD in decision science, has amassed significant experience in assisting high level decision-makers to better understand how they make (and un-make) decisions. Even though Wayne is presently in Portugal, our on-line format is perfectly suited to plumbing his knowledge and experience. I am hopeful that we can all allow a little more time for this townhall, as I am sure there will be much discussion, particularly knowing Wayne and his insights. More about him in our next newsletter, but you may want to pencil this in and let others who may be interested have some advance warning.

Hope to see you all on Tuesday!

Warm regards,

Dr Anthony Reed

HITSA Chairperson