Hospital congestion: a market solution to address delayed transfers of care from hospital beds

The case for a market mechanism to improve health system flow and patient care

The coronavirus disease 2019 (COVID-19) pandemic significantly exacerbated pre-existing emergency department (ED) congestion in Australian hospitals, accompanied by significant ambulance offload delays occurring in every state.[1] We need a national focus on getting people out of hospital when they do not require this level of care, thereby reducing ED congestion.

Delayed transfers of care (DTOCs) are one reason for these unnecessary days in hospital. More commonly referred to as "delayed discharges" in Australia, DTOCs are not a new problem but have been rarely analysed at a system level. This means we do not currently have the whole picture of what is causing DTOCs. If Australia is to deal with this problem, we need a whole-of-system approach.

Delayed transfers of care may cause harm

A DTOC occurs when a patient is deemed ready to depart from their current hospital care but is unable to leave due to non-clinical reasons.[2] This could be because of delays in hospital processes, coordination issues, or due to a lack of available community care.

A key part of a DTOC is that it is likely to affect the most vulnerable people in our communities. A recent study looking at a predictive model for DTOCs found that there are eight key risk factors, including age, social determinants of health, and prior admission to hospital in the preceding 12 months.[3]

The danger of DTOCs is that their impact extends both ways through the system, potentially harming patients being treated and those waiting for treatment. The impacts of DTOCs include longer waits for admission, delayed elective surgeries, and hospital overcrowding, affecting morbidity and mortality. Similarly, patients admitted to hospital who are staying longer than medically necessary face an increased risk of hospital-acquired complications.[4] Despite these impacts leading to worse outcomes for patients, DTOCs also negatively affect the system by increasing health care costs and the time spent in hospital for some patients and delaying access to treatment for other patients.

Australia has no national policy to deal with this problem

DTOCs have rarely been a targeted focus in Australia, with the emphasis placed on reducing overall hospital average length of stay. There has been a focus on efficiency, with average length of stay and hospital bed rates dropping but activity rising.[5] The average length of stay is a useful indicator to measure the health system but it is not an ideal metric for DTOCs, as it does not inform the extent to which DTOCs contributed to this delay or the specific reasons for DTOCs. Understanding this is vital, as the overall availability of timely disability and aged care are key factors influencing DTOCs.

The National Disability Insurance Scheme (NDIS) was established to deliver a market-based approach for social support and disability care. However, concerns have been raised about the Scheme's long term viability and ability to meet growing demand for care.[6,7] For aged care, the demand for home and residential care is currently larger than supply, which may increase as the population ages, even as it undergoes reform.[8]

The difficulties with access to aged care and disability care have implications for the health system. It was recently reported that more than 1430 NDIS participants were in hospital waiting to be discharged, with the Minister for the NDIS, the Hon Bill Shorten MP, calling for an end to "bureaucratic wait times" to access NDIS care.[9] Although most delays are between one and three months, some people spend up to two years unnecessarily in hospital, often caused by NDIS administrative delays.[10] Meanwhile, the 2022 report on government services shows that, in 2019–20, over 300 000 hospital patient-days were used by those waiting for residential aged care alone.[11]

The impact of DTOCs is exacerbated by the lack of incentive to meet demand. There is no current market mechanism to get medically cleared patients out of hospital, which is vital for two market-based sectors such as disability and aged care, as there is a perception that hospitals are safe places for participants to wait.[12] The lack of a clear policy to deal with DTOCs means we are unable to measure their true impact as we do not know their prevalence, with little shared accountability for identifying or managing them.

The United Kingdom experience of addressing delayed transfers of care

The UK provides a clear example of how Australia can understand and manage DTOCs. Legislation introduced in 2003 created a scheme that required local authorities to make payments to National Health Service (NHS) acute hospital trusts whenever a patient remained in hospital because of delays to access community care. This stemmed from the 2002 Wanless Report, which highlighted Sweden's reduced hospital discharge issues following a similar reform in 1992.[13]

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The implementation of this policy required greater data to capture the problem and assign specific responsibility, including total DTOC instances, sectoral responsibility for each DTOC, and the number of lost hospital bed-days. A monthly national dataset began to be collected and published in 2010.[14] This method of standardised data collection highlighted key system pressure points. The NHS has, since records began, been responsible for most DTOCs, accounting for about 60% of patient delays, compared with social care, which is responsible for 30% of delays.[15]

These changes took time to have an impact, but between 2017 and 2020 the number of delayed bed-days from DTOCs decreased by 22%. Coinciding with a national policy drive that required local authorities to agree to DTOC reduction targets,[16] the number of occupied bed-days related to DTOC reduced from over 200 000 lost bed-days in a single month to a record low of under 130 000.[14]

The UK experience highlights what Australia could learn analysing its own health care data. For instance, in England, a survey found that 85% of DTOCs involved older patients aged 65 years or over, with estimated additional costs of £820 million annually.[17] The NHS data also highlight the fragility of focusing on overall efficiency, as DTOCs represent a relatively small number of patients yet have a disproportionate impact on overall bed availability.[2]

DTOCs remain a problem in the UK, with the pressure on social services increasing during the COVID-19 pandemic.[18] The UK's focus on DTOCs has also been seen as simplistic, failing to consider the problem holistically.[19] The UK is evolving its DTOC approach towards a policy of "discharge to assess", using home assessments (rather than hospital assessments for care) to reduce the impact of hospital delays.[20] Subsequently, the DTOC payment policy was revoked under the *Health and Care Act 2022*, but this evolution is part of the UK's decade-long prioritisation of health and social care integration, which reduced the incentive of payments due to shared financial resources.[21]

Limitations and disadvantages

Australia can learn from the UK experience, but it must recognise its own problems which may have an impact on the effectiveness of a DTOC policy. For instance, implementation of a DTOC policy needs to be supported by community care investment, including housing, aged care, and disability services from all levels of government.[22,23] However, Australia's regulatory and funding system complicates this, with varying state and federal divides across the health, disability, and aged care sectors. This means replicating the UK model could lead to unintended consequences. To implement a DTOC policy in Australia would entail major regulatory reform.

Addressing DTOC as a key metric should encourage greater collaboration to solve joint issues that have an impact on DTOCs. Recent Victorian initiatives to address DTOCs for NDIS participants are an example of the cross-jurisdictional support. But a market solution risks undermining this by potentially increasing system-wide conflict, with participants possibly "gaming the system" due to the creation of perverse incentives. This means that any DTOC policy would need to be accompanied by considerable support and oversight mechanisms.

These mechanisms are vital as there is a risk that a focus on DTOC could renew the emphasis on hospital care. There is wide recognition of social determinants of health across Australia, and the opportunity to reduce hospitalisations. However, DTOCs are closely associated with broader social determinants of health and factors that affect the likelihood of hospitalisation, which means a DTOC policy could support broader health reform.[3] With effective implementation, hospital throughput should not become the only focus.[24]

A market mechanism to bridge health and social care

Addressing delayed access to out-of-hospital care will improve both health system efficiency and patient outcomes. We have suggested Australia consider the UK approach to measuring and financing DTOCs but ensure that this approach is specifically adapted to the local political, funding and sociocultural context.

There are several components of the UK's response to DTOCs that can inform a future policy direction in Australia:

- capturing national standardised data on DTOCs, including cost and causes;
- publishing publicly available near real-time data;
- creating suitable measures for performance benchmarking;
- establishing a market mechanism to incentivise improved discharged processes by returning aged care and disability funds to health services where those providers are solely responsible for a DTOC; and
- investing in broader health, social and disability care to improve overall service capacity.

The need for this approach is highlighted by current hospital "ramping" pressures in Australia, which is related to DTOCs and contributes to increased mortality risk.[25]

Specifically addressing DTOCs will result in greater efficiency, effectiveness and safety in Australian hospitals. It has long been established that we need to target inpatient flow to decrease ED access block.[26] This proposal is an important step to deliver an integrated care system, placing greater emphasis on system-wide accountability to improve care for Australian patients.

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1 Australian Medical Association. Hospital performance failing as health system crumbles [media release]. 31 Jan 2023. https://www.ama.com.au/media/hospital-performance-failing-health-system-crumbles (viewed Feb 2023).

2 Edwards N. What's behind delayed transfers of care? London: Nuffield Trust, 2017. https://www.nuffieldtrust.org.uk/resource/what-s-behind-delayed-transfers-of-care (viewed Aug 2022).

3 Davy A, Hill T, Jones SJ, et al. A predictive model for identifying patients at risk of delayed transfer of care: a retrospective, cross-sectional study of routinely collected data. *Int J Qual Health Care* 2021; 33: mzab130.

4 Hinde S, Bojke L, Richardson G, et al. Delayed transfers of care for older people: a wider perspective. *Age Ageing* 2021; 50: 1073-1076.

5 Wilson A, FitzGerald GJ, Mahon S. Hospital beds: a primer for counting and comparing. *Med J Aust* 2010; 193: 302-304. https://www.mja.com.au/journal/2010/193/5/hospital-beds-primer-counting-and-comparing

6 National Disability Services. State of the Disability Sector Report 2021. NDS, 2021. https://www.nds.org.au/images/State_of_the_Disability_Sector_Reports/SoTDS_2021_single.pdf (viewed Aug 2022).

7 Read M. NDIS blowout could hit $102b, overtaking the age pension. *Financial Review* 2022; 25 Oct. https://www.afr.com/politics/ndis-blowout-could-hit-124b-overtaking-the-age-pension-20221024-p5bsbs (viewed Nov 2022).

8 Woods M, Sutton N, McAllister G, et al. Sustainability of the aged care sector: discussion paper. Sydney: University of Technology Sydney, 2022. https://opus.lib.uts.edu.au/handle/10453/158194 (viewed Aug 2022).

9 Gailberger J. Hospital patients wait to be discharged in NDIS "bed block". *Herald Sun* 2022; 8 Aug. https://www.heraldsun.com.au/news/victoria/hospital-patients-wait-to-be-discharged-in-ndis-bed-block/news-story/13a4b76f83c95b25be51df072c377f52 (viewed Aug 2022).

10 Cubis L, Ramme RA, Roseingrave E, et al. Evaluating the discharge planning process: barriers, challenges, and facilitators of timely and effective discharge for people with disability and complex needs. Melbourne: Summer Foundation and La Trobe University, 2022. https://www.summerfoundation.org.au/resources/evaluating-the-discharge-planning-process-barriers-challenges-and-facilitators-of-timely-and-effective-discharge-for-people-with-disability-and-complex-needs/ (viewed Aug 2022).

11 Australian Government Productivity Commission. Report on Government Services 2022: aged care services [website]. https://www.pc.gov.au/ongoing/report-on-government-services/2022/community-services/aged-care-services (viewed Nov 2022).

12 Foster MM, Borg DN, Houston V, et al. Planning with care complexity: factors related to discharge delays of hospitalised people with disability. *Health Soc Care Community* 2022; 30: e4992-e5000.

13 Wanless D. Securing our future health: taking a long-term view. London: HM Treasury, 2002. https://www.yearofcare.co.uk/sites/default/files/images/Wanless.pdf (viewed Aug 2022).

14 National Health Service England. Delayed transfers of care data 2019–20 [April 2020]. London: NHS England, 2020. https://www.england.nhs.uk/statistics/statistical-work-areas/delayed-transfers-of-care/delayed-transfers-of-care-data-2019-20/ (viewed Aug 2022).

15 Nuffield Trust. Delayed transfers of care — QualityWatch [website]. London: Nuffield Trust, 2021. https://www.nuffieldtrust.org.uk/resource/delayed-transfers-of-care (viewed Aug 2022).

16 Gridley K, Baxter K, Birks Y, et al. Social care causes of delayed transfer of care (DTOC) from hospital for older people: unpicking the nuances of "provider capacity" and "patient choice". *Health Soc Care Community* 2022; 30: e4982-e4991.

17 National Audit Office. Discharging older patients from hospital. London: National Audit Office, 2016. https://www.nao.org.uk/wp-content/uploads/2015/12/Discharging-older-patients-from-hospital.pdf (viewed Aug 2022).

18 Limb M. Delayed discharge: how are services and patients being affected? *BMJ* 2022; 376: o118.

19 Maguire D. Delayed transfers of care: a target that misses the mark? *The King's Fund* 2018; 4 Jan. https://www.kingsfund.org.uk/blog/2018/01/delayed-transfers-care-target-misses-mark (viewed Aug 2022).

20 Horton T, Wood S. Improving hospital discharge in England: the case for continued focus and support. *The Health Foundation* 2022; 31 Mar. https://www.health.org.uk/news-and-comment/blogs/improving-hospital-discharge-in-england-the-case-for-continued-focus (viewed Aug 2022).

21 Murray R. The Health and Care Act 2022: the challenges and opportunities that lie ahead. *The King's Fund* 2022; 22 May. https://www.kingsfund.org.uk/blog/2022/05/health-and-care-act-2022-challenges-and-opportunities (viewed Aug 2022).

22 Welsh Parliament, Health and Social Care Committee. Hospital discharge and its impact on patient flow through hospitals; June 2022. Cardiff: Senedd Commission, 2022. https://senedd.wales/media/f21peeh4/cr-ld15151-e.pdf (viewed Aug 2022).

23 Integration and Better Care Fund. People first, manage what matters ... Part of the why not home? Why not today? series. Integration and Better Care Fund, 2019. https://reducingdtoc.com/People-first-manage-what-matters.pdf (viewed Aug 2022).

24 Bryan K. Policies for reducing delayed discharge from hospital. *Br Med Bull* 2010; 95: 33-46.

25 Dawson LP, Andrew E, Stephenson M, et al. The influence of ambulance offload time on 30-day risks of death and re-presentation for patients with chest pain. *Med J Aust* 2022; 217: 253-259. https://www.mja.com.au/journal/2022/217/5/influence-ambulance-offload-time-30-day-risks-death-and-re-presentation-patients

26 Fatovich DM, Nagree Y, Sprivulis P. Access block causes emergency department overcrowding and ambulance diversion in Perth, *Western Australia. Emerg Med J* 2005; 22: 351-354. ■