

1	Effects of COVID-19 on Routine Services	Removal of Ovarian Tissue - Change in Practice?	13
6	Managing Transitions from Child to Adult Mental Health Services	Origins of Triage	15
10	Health Insurance Schemes	Latest News & Events	16
11	Preventive Agent for Alzheimer's Disease	ARC WM Quiz	17
12	Thrombectomy for Stroke Patients 6+ Hours	Recent Publications	18

ARC West Midlands News Blog





Effects of COVID-19 on Routine Services

Richard Lilford, ARC WM Director; Peter Chilton, Research Fellow

During the UK’s first period of COVID-19 lockdown several newspaper articles were published reporting massive reductions in hospital access and disruption of routine hospital services in the NHS. We counted 16 articles in the mainstream press during April 2020, ranging from “heart attack victims scared to seek help” (The Times, 6 Apr), to “sharp rise in deaths at home” (Guardian 16 Apr).

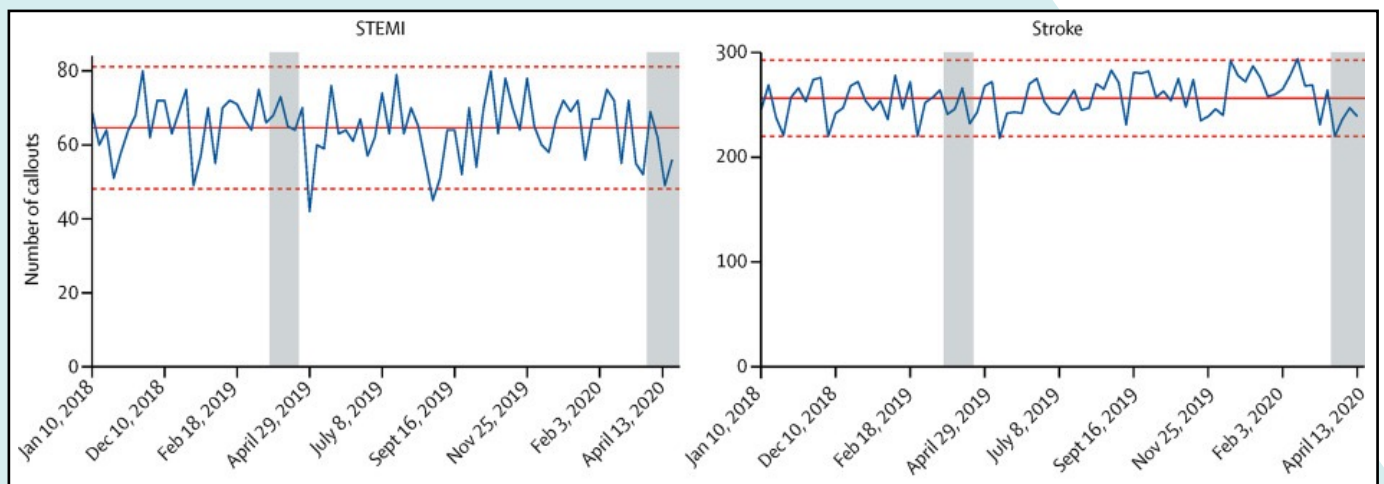
Working with colleagues from the [Margaret Peters Centre](#) supported by ARC WM and ARC EM, we conducted various database studies to look at the effects, if any, COVID-19 was having on routine services in England.

We sought to look at three main barriers to healthcare access:

1. Seeking out healthcare.
2. Reaching healthcare / being transferred to a facility.
3. Getting treatment within facilities.

Barrier 1: Health Seeking

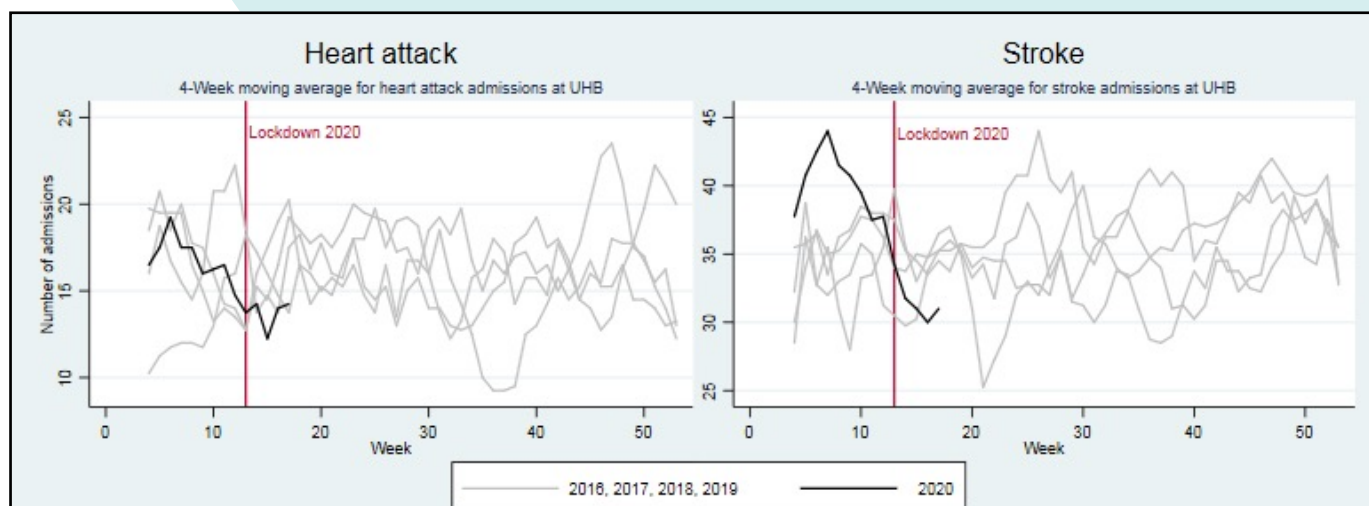
In partnership with the West Midlands Ambulance Service, we analysed data on ambulance attendance at A&E departments over a two-year period, which showed there was little evidence for a year-on-year drop in ambulance call-outs for ST-segment elevation myocardial infarction (STEMI) ($p=0.17$) or stroke ($p=0.11$) (see below Figure - shaded areas are periods of UK lockdown).[1]



Barrier 2: Reaching Healthcare

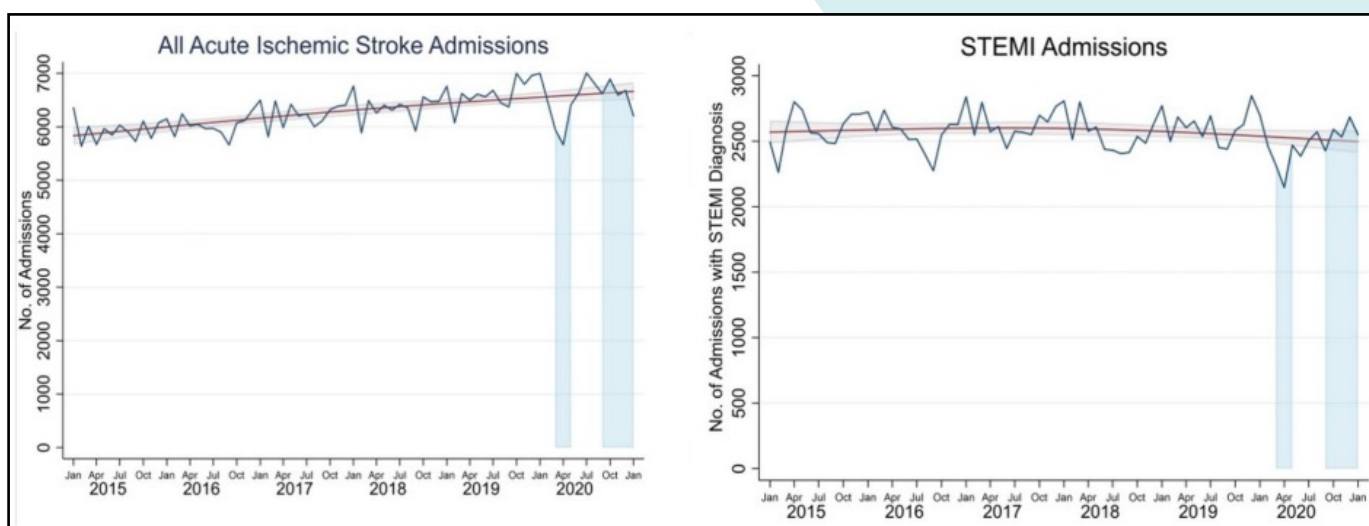
As not all patients with STEMI or stroke arrive at hospital via ambulance, we went on to examine overall hospital admissions from University Hospitals Birmingham NHS Foundation Trust. Data were compared from 2016-2019 with the corresponding period in 2020 (both prior to and

during lockdown).[2] The results showed no evidence of a significant reduction in the overall mean number of admissions for patients with STEMI ($p=0.17$) or stroke ($p=0.15$) (see below Figure).



When we looked at hospital admissions for the same conditions using six years of data from the national Hospital Episode Statistics (HES) database we found similar results (study unpublished).

There was no reduction in admissions for patients with either diagnosis over the periods where COVID-19 incidences peaked (see below Figure - shaded areas are periods of peak COVID incidence).

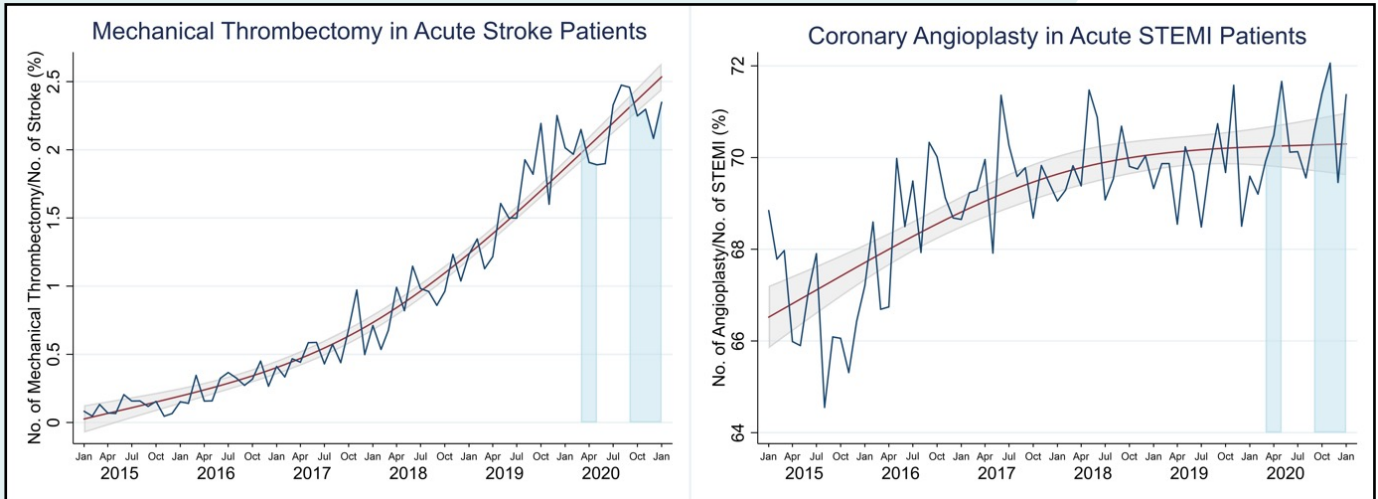


Barrier 3: Getting Treatment

Emergency Treatment

We were also interested in seeing the impact on patients receiving emergency treatment. To this end we looked at HES data on the proportion of acute stroke patients receiving mechanical thrombectomy, and acute STEMI patients receiving a coronary angioplasty.

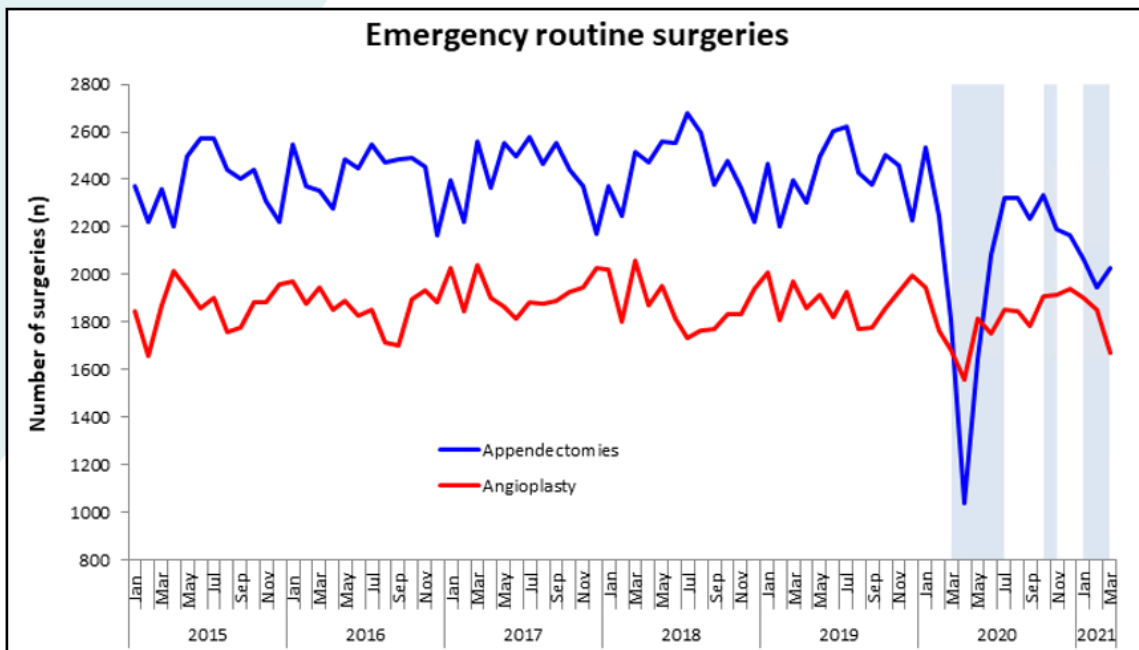
Again, there was no discontinuity in the proportion of admitted patients receiving coronary angioplasty or mechanical thrombectomy (study unpublished) (*see below Figure - shaded areas are periods of peak COVID incidence*). Note the increase in mechanical thrombectomy in England, mirroring the pre-COVID National Stroke Audit.[3]



Surgery

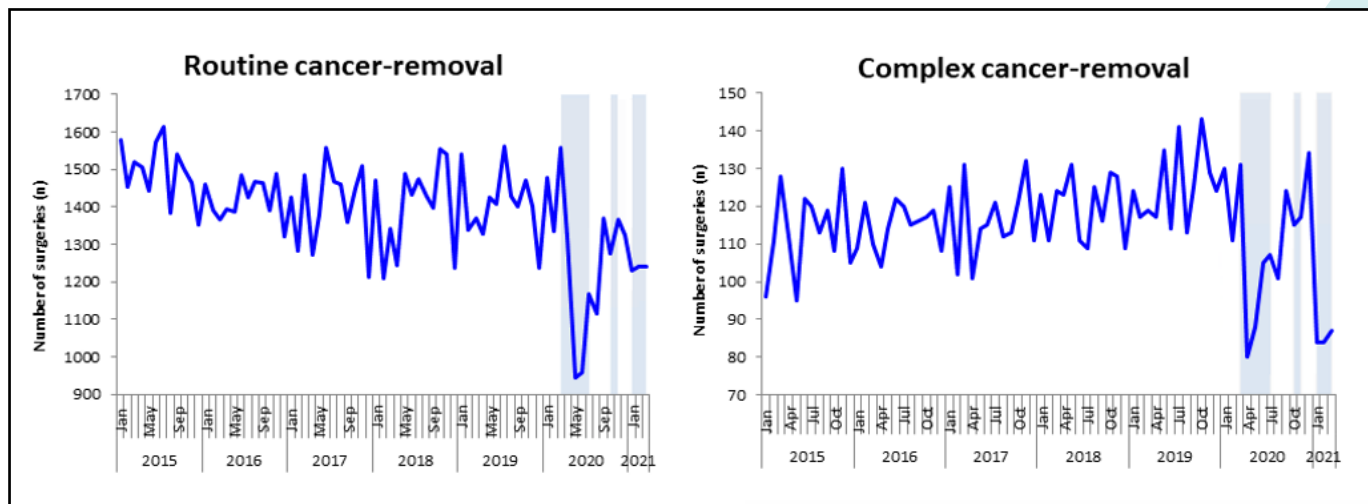
Our next topic of interest was on the use of surgery.[4] Data from HES showed that there was a substantial decrease in the number of surgeries corresponding with the first peak of COVID-19 incidence. However, emergency and urgent operations were less affected compared

to elective surgeries. As can be seen in the following figure, there was a dramatic decrease in appendectomies, but (as found above) little change in emergency angioplasties for acute myocardial infarction (*shaded areas indicate periods of UK lockdown*).



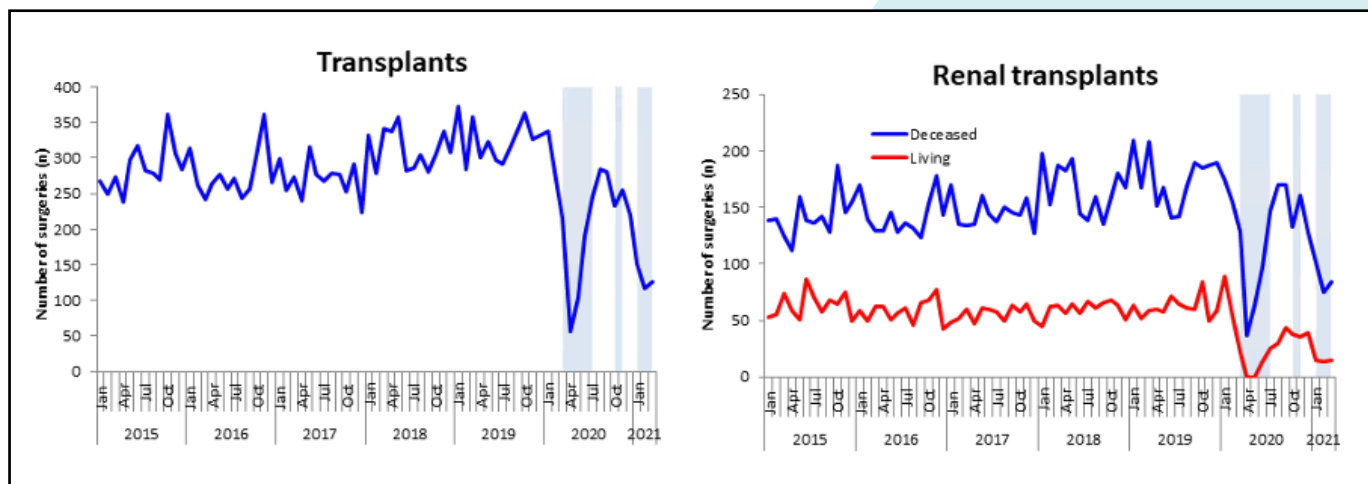
There was severe disruption among operations for cancer and transplants, with those that were more complex being the most affected, in

particular during the latter period of lockdown (see below Figure - shaded areas indicate periods of UK lockdown)



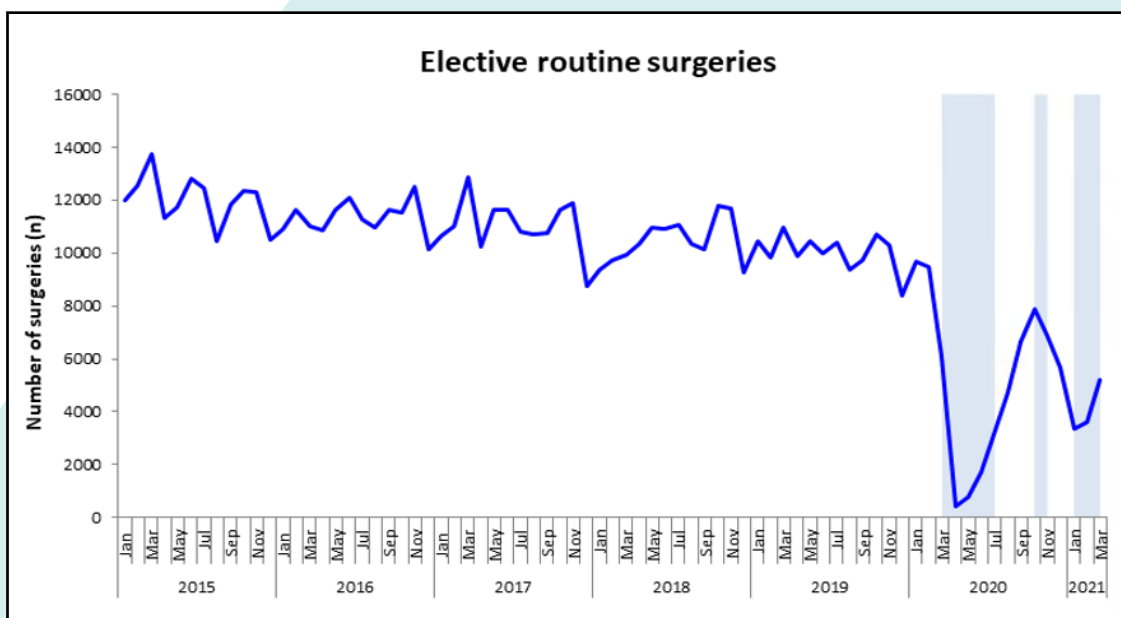
Transplant surgery demonstrated a similar effect, with the most drastic being seen in renal

transplants (see below Figure - shaded areas indicate periods of UK lockdown).



Finally elective routine surgeries, such as hip replacement and inguinal hernia, dropped to almost nothing during the first lockdown, but

were less affected during later lockdowns (see below Figure - shaded areas indicate periods of UK lockdown).



Overall, it seems that the response seen by the NHS was well measured, with urgent and emergency cases being prioritised over routine, elective cases. However, for procedures that are more complex and time critical, such as transplants, there was more disruption.

Outside the UK

We also looked at the impact of COVID on healthcare for people living in seven slum areas of four low- and middle-income countries, which found that there had been a reduction in healthcare access thanks to reduced staffing levels; that the cost of health care had risen, while household income had declined; and

that people were afraid of the impact a positive diagnosis would have on their lives. However, there were also improvements seen, such as an improvement in telehealth care; pharmacists that extended credit when needed; and government support (albeit inconsistent).[5]

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Managing transitions from child to adult mental health services in Europe: findings from the MILESTONE trial



Dr Helena Tuomainen, Assistant Professor of Youth Mental Health, Mental Health & Wellbeing (University of Warwick)

I imagine Annette, close to her 17th birthday, who has finally agreed to see a mental health specialist for her ongoing anxiety, stress, and low mood, which have adversely affected her education. Although not formally diagnosed yet, she has symptoms of autism, which means she has difficulties with social interaction and communication, especially with people she does not know or trust. After having to wait several weeks for an appointment at the local child and adolescent mental health service (CAMHS) and several more before the treatment begins, she finally gets a therapist to work with and is prescribed antidepressants. Annette has put off therapy for years, and it takes her a couple of months to warm up to her new therapist, to start talking about her past, riddled with misfortune, not of her own making. Some months down the line Annette can feel how the sessions are helping her manage her anxiety and starts looking forward to them. Shortly before she turns 18, the therapist announces the sessions will come to an end after her birthday, but that she will be referred to adult mental health services (AMHS), despite a long waiting list. Annette is shocked and disappointed, and the anxiety that had started abating comes back with vengeance:

What might the new therapist be like? What if she doesn't get on with him/her? Will she have to go through all her traumatic past again? Getting to trust her therapist had taken such a long time - Annette is not sure she is willing to reconnect with a new person. By the time of her first AMHS appointment, her anxiety has got the better of her and she fails to attend the appointment.

What is the likely next scenario? Annette happily moving on to pursue further education, where she flourishes? Or worsening anxiety and depression whilst trying to manage all the new challenges that a young person confronts when entering adulthood and new educational settings?

Although Annette is fictional, her story is based on true characters and experiences.[1] Annette could be living in any of the eight countries that took part in MILESTONE, a European Union funded 5-year project (2014-19) covering Belgium, Croatia, France, Germany, Ireland, Italy, the Netherlands, and the UK.[2] MILESTONE stands for *Managing the Link and Strengthening Transition from Child to Adult Mental Health Care in Europe*, and our survey of all 28 nations of the EU showed that transitional care has been neglected in most countries.

Written policies for managing the interface between child-adult mental health services were available in only four countries, and half had no transition support services.[3] Only three countries reported routinely conducting a standardised assessment of the needs of young people approaching the end of care at CAMHS,[4] indicating that young people are often excluded from the process of making decisions regarding the care they receive after reaching the service boundary, typically at the age of 18.

The MILESTONE project, led by Professor Swaran Singh at the University of Warwick, was developed to help improve the quality of transitional care, to reduce the numbers of young people falling through the gap between services.[2] Previous research in the UK and elsewhere has shown that transition to AMHS is not only poorly prepared and executed but also poorly experienced,[5] hampering engagement with adult services.[6]

MILESTONE contained seven work streams. Colleagues at King's College London took the lead in developing and validating a structured assessment tool, the *Transition Readiness and Appropriateness Measure (TRAM)*, in the eight countries.[7,8] The new measure, with versions for young person, parent/carer, and clinician, assesses whether transition to adult services is appropriate for any young person who is approaching the service boundary in CAMHS, and whether they are ready for it.

TRAM is central to 'Managed transition', a model of transitional care developed in MILESTONE. [9,10] The model included CAMHS training; systematic identification of young people approaching the service boundary of a CAMHS; a structured assessment with the TRAM, ideally 6 months before the service boundary; and feedback of the TRAM findings to the CAMHS clinician via a TRAM summary report. The aim of the latter was to support discussions with the young person and their family about the need for continued care and options regarding further treatment. CAMHS clinicians were also expected to communicate the TRAM findings to the AMHS clinician, if transition to adult services

was deemed necessary, to support the referral which in many instances is not successful. One of the main reasons for discontinuity of care at the service boundary is AMHS indicating that the young person is not ill enough for treatment.[6]

Our team at the University of Warwick were responsible for assessing the effect of Managed Transition on mental health outcomes of young people. In the MILESTONE cluster randomised controlled trial (cRCT), which included economic evaluation of the intervention, CAMHS recruited in the eight countries were randomised 2:1 to offer either usual care or Managed transition.[9] A third group of CAMHS was associated with a cohort study running alongside the trial.[11] Service users within one year of reaching the service boundary of their CAMHS were eligible for participation in the study, provided their IQ was 70 or above. A parent/carer and a CAMHS clinician were also invited to participate in the study.

As the trial coordinator, I held monthly meetings with the research assistants in the eight countries to monitor progress and ensure study procedures were followed. In every CAMHS, participants were identified by clinicians, or by other care staff, and recruited by local study personnel. Research assistants completed assessments at baseline, 9 and 15 months. They met the young person and parent/carer for baseline assessment approximately 6 months prior to the service boundary. The assessment included structured interviews and a series of self-reported measures, including the TRAM, hosted on a web-based data capture system, *HealthTracker™*. [9]

The primary outcome was HoNOSCA (*Health of the Nation Outcome Scale for Children and Adolescents*) score 15 months post entry to the trial. HoNOSCA is a validated and widely implemented outcome measure in CAMHS in Europe focusing on the psychosocial functioning of the young person. Secondary outcomes were numerous and included HoNOSCA self-report, transition outcomes (Transition Related Outcome Measure),[7] health-related quality of life (EQ-5D-5L) and resource utilisation (Client Service Receipt Inventory),

the latter used in the economic evaluation. After a slow start in some trial sites, we met our original recruitment target and managed to retain a larger number of participants than originally anticipated. In all, we recruited 844 young people from 40 CAMHS in the 8 countries between Oct 2015 and Dec 2016; 793 were available for baseline assessments, 273 in the Managed transition group and 552 in the usual care group. At 15-months, we reached 76% (602/793) of the cohort for assessments. Participants in the trial arms had similar demographic and clinical characteristics except that young people in the MT group were slightly more unwell, as indicated by HoNOSCA, TRAM and CGI (Clinical Global Impression) scores. To our surprise, a relatively large proportion of young people were still under the care of their original CAMHS at 15 months follow-up (27.4% usual care vs. 24.5% Managed transition).

Over the 15 months, Managed transition led to a small improvement in overall mental health and wellbeing of young people 15 months after entry to the trial, as compared to usual care. Unadjusted mean HoNOSCA scores declined in both Managed transition and usual care groups, indicating a general improvement in mental health and wellbeing over time in both groups. However, the reduction appeared more rapid in the Managed transition group. The difference in mean HoNOSCA scores between the trial arms (MT-UC) at 15 months, was -1.11 [95% confidence interval (CI) -2.07 to -0.14, $p=0.03$]. The economic analysis revealed that direct intervention delivery costs ranged between €17 and €65 per child. Clinician training costs ranged between €22 and €176, depending on how training and delivery was conducted in each country. Whilst Managed transition achieved modest clinical gains, the intervention was relatively inexpensive to implement.

The MILESTONE cRCT is the first-ever RCT of a scalable intervention for improving mental health outcomes for young people at the child–adult service boundary. We faced various challenges that may have impacted the findings. We may have missed a number of young people

with more severe mental illness for whom transition to AMHS is essential. Blinding of CAMHS clinicians or assessors was not possible. Since the trial was linked to the cohort study, participants in the usual care arm, including clinicians, completed also the TRAM – whilst they did not receive the summary report, their decision making may have been influenced by this.

Reflecting back to Annette, Managed transition could have helped in the following ways: a routine TRAM assessment with feedback report would have facilitated the discussion about continuity of care well in advance of the service boundary. Annette and her parent would have been involved in the decision-making process regarding next steps. An action plan would have been put in place and there would have been time to alleviate Annette’s fears regarding the new service. AMHS would have received the TRAM summary report with the referral letter, reducing the need for Annette to start from the beginning or to elaborate on every detail. Furthermore, a joint meeting involving the new AMHS clinician, as recommended by NICE [12], would have enabled Annette to meet the new clinician in advance of her first appointment.

Compared to other transitional care models, Managed transition is far less resource intensive. Alternative models are linked to larger scale Transition Programmes, as implemented in the USA, service restructuring, as in Birmingham, where Forward Thinking Birmingham (CAMHS) supports young people up to the age of 25, or Australian-style youth-friendly service models.[6] Diverse funding structures across the EU may facilitate care provision in some CAMHS beyond the official service boundary; few CAMHS in the UK, however, can hold on to young people after they reach 18. More needs to be done to ensure young people are better supported if they transition out of mental health services, or fall through the gap, whilst still presenting with a clinical need.[1]

MILESTONE trial findings were published recently in Psychological Medicine.[10] The MILESTONE 28 country survey [4] and research stream linked to the training of psychiatrists [13,

14] uncover some of the underlying problems in the mental health service system that result in poor communication and coordination between child and adult mental health services. The ethics work stream discovered

how prevailing stigma regarding mental illness and adult mental health services still impacts young people views and willingness to transition to adults services after CAMHS.[15]

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Another Randomised Trial of Health Insurance Schemes

Richard Lilford, ARC WM Director

The ARC WM Director is fascinated by trials of micro-economic interventions and thanks Fergus Hamilton for bringing this one to our attention.[1] Malani and colleagues conducted a large, randomised trial in India, where households were assigned to one of four different conditions: free insurance; sale of insurance; sale plus cash transfer; or control. “What about contamination,” do I hear you ask? To deal with this type of spill-over effect the authors used a clever method – they varied the fraction of households offered insurance across various participating villages.

The offer to purchase insurance led to a 60% uptake, while access to free insurance resulted in only 19% greater uptake – 79% in total. Nearly 11,000 households participated, across 435 villages. The participating households were all above the poverty line, since those below that line were eligible for a national insurance scheme.

Although the uptake of insurance was high, the effect of insurance on utilisation of services was more modest. At 18 months, service utilisation increased from about 4 to 10 percentage points. A further 5% of enrolled wholesales tried to use their insurance but failed because they attended a non-participating hospital or lost their card.

The study also found that spill-overs were important, meaning that peoples insurance behaviour was influenced by the behaviour of others in their locality. This peer effect has been found in other similar studies.

Reference:

1. Malani A, Holtzman P, Imai K, et al. [Effect of Health Insurance in India: A Randomized Controlled Trial](#). *NBER Working Paper 29576*. 2021.



A Potential Preventive Agent for Alzheimer's Disease

Richard Lilford, ARC WM Director

This was not the easiest paper to obtain, but we might look back on it as a seminal event in the prevention or delay of the terrible dementia that affects us humans.[1]

The study is in three stages. First, catch your dragon! This paper starts by identifying genetic traits that affect the function of the two proteins (amyloid beta and tau) thought to be responsible for Alzheimer's disease. This is based on mouse models for the disease and looking for genes that are associated with amyloid beta or tau pathology. These are called endophenotype models.

Next, they collected 21 known drugs that were used and developed for non-Alzheimer indications, but which had some sort of association with the genetic traits identified in the first stage. Drugs targeting these endophenotypes have the greatest potential for success in preventing Alzheimer's disease. In fact, 11 of these 21 are already in clinical trials for Alzheimer's disease. Sildenafil was selected as the most promising candidate. This was in part because this medicine, which is normally used to treat erectile dysfunction, is effective in transgenic mouse models of Alzheimer's disease.

They then carried out a massive pharmacoepidemiological study looking at the effects of sildenafil on Alzheimer's disease outcomes in ~7.23 million individuals from the

Medicare database. For patients using sildenafil, they used three kinds of controls: no drug; a drug with no activity against Alzheimer's; and drugs that might be effective against Alzheimer's. Cox regression analysis was used to calculate hazard ratios over six years of follow up. The risk of Alzheimer's disease was reduced by about two-thirds in those taking sildenafil. The results held up after various adjustments for health, disease, and cognitive impairment. The effect in males was larger than that in females but the direction of effect was the same. The authors argue that this could be a dose effect. The benefit was also apparent, but not statistically significant, in the small number of women using sildenafil for pulmonary hypertension. Both sildenafil use and a lower risk of Alzheimer's disease are associated with high socio-economic class, and it was impossible to control for this potential confounder since the data had not been recorded in the Medicare database.

Reference:

1. Fang J, Zhang P, Zhou Y, et al. [Endophenotype-based in silico network medicine discovery combined with insurance record data mining identifies sildenafil as a candidate drug for Alzheimer's disease.](#) *Nat Aging.* 2021; 1:1175–88.

Thrombectomy for Stroke Patients

Beyond Six Hours

Peter Chilton, Research Fellow

Thrombectomy in patients with anterior circulation proximal large vessel occlusion stroke is typically only used within six hours of initial stroke presentation. However, strokes are not always immediately noticed, for example if the patient is asleep, and they are not something that can be properly diagnosed in an ambulance, leading to delays. There is evidence, however, that thrombectomy could still be effective up to 24 hours afterwards in certain patients. Trials have been conducted where patients who show evidence that they have recoverable brain tissue have been randomly assigned to receive thrombectomy between 6-24 hours after the stroke (depending on study protocol), but these have been relatively small and thus underpowered.

To this end, a systematic review and meta-analysis of individual patient data was recently published in the *Lancet*,^[1] aiming to estimate the overall benefits of thrombectomy. Patient level data were obtained from 505 individuals over six trials (266 in the intervention arms, and 239 in the control arms).

Analysis of the data showed that in patients who underwent thrombectomy 6-24 hours after stroke, their disability scores at 90 days

were improved with an adjusted odds ratio of 2.54 (1.83-3.54; $p < 0.0001$) compared to control. The treatment effect was stronger in those patients who were randomly assigned to undergo thrombectomy within 12-24 hours compared to those who were assigned 6-12 hours ($p < 0.01$). Undergoing thrombectomy was also associated with increased rates of independent activities ($p < 0.0001$). There were no significant differences when looking at 90-day mortality, or symptomatic intracerebral haemorrhage. Thrombectomy was also shown to be beneficial regardless of how the patient presented – i.e., stroke discovered after waking up; stroke onset witnessed; or stroke onset not witnessed.

Based on this analysis it seems that thrombectomy should be attempted for patients who are still within the 6-24 hour window after onset, and should not be withheld on the basis of the mode of presentation, advanced age, clinical deficit, or size of infarction on baseline CT scan.

Reference:

1. Jovin TG, Nogueira RG, Lansberg MG, et al. [Thrombectomy for anterior circulation stroke beyond 6 h from time last known well \(AURORA\): a systematic review and individual patient data meta-analysis](#). *Lancet*. 2022; **399**: 249-58.

Removal of All Ovarian Tissue at the Time of Hysterectomy for Benign Conditions: Change in Practice Following Evidence of Negative Health Effects

Felicity Evison (Principal Research Informatician), Jemma Mytton (Information Analyst), Kelly Schmidtke (Assistant Professor), Peter Chilton (Research Fellow), Richard Lilford (ARC WM Director)

Tens of thousands of applied health research articles are published every year. Few of these lead directly to a change in practice, especially if they are not based on an experimental design. We published an observational study in the BMJ in 2017 on the health effects of removing versus conserving ovarian tissue at the time of hysterectomy for benign disease.⁽¹⁾ The study was by an order of magnitude the largest ever performed, with a mean follow up of nine and a half years. The study showed that there was an increase in admissions for cardiovascular disease, deaths from cardiovascular disease and overall deaths in the bilateral oophorectomy group when compared to propensity score matched controls where ovarian tissue was retained. There was no countervailing benefit and the expected reduction in ovarian cancer had not materialised over the follow-up period. We thought it would be interesting to track the use of oophorectomy during hysterectomy over the time of publication of our papers. We conduct an interrupted time series analysis to test for any discontinuity around the year in which our paper was published. We hypothesised that there would be no discontinuity in the data.

To replicate the sampling strategy in the previous paper we selected patients undergoing a hysterectomy for benign disease. This means, we only included patients aged 35-45, whose age and sex were both recorded, who were resident in England and who were undergoing an elective hysterectomy.

We performed an interrupted time series analysis to examine for any interruption in

the proportion of bilateral oophorectomies accompanying eligible hysterectomies. Two change points were selected - the first to reflect the time of publication of our paper in Q1, 2017; the second to reflect a pattern in the earlier data where there is an apparent upturn in the proportion of hysterectomies accompanied by bilateral ovary removal at Q2, 2012/13.

After exclusions we identified 158,619 eligible hysterectomy procedures between 1st April 2004 and 31st March 2020. These were split into two groups of ovary conservation (104,168 [65.7%]) vs no ovaries remaining (54,451 [34.3%]). The mean length of follow up has increased from 6.2 (SD 2.84) years in our previous study, to 9.5 (SD 4.49) years. The total number of hysterectomies per year has maintained its downward trajectory as observed in the original paper from 13,047 in 2004/05 to 6,217 in 2019/20.

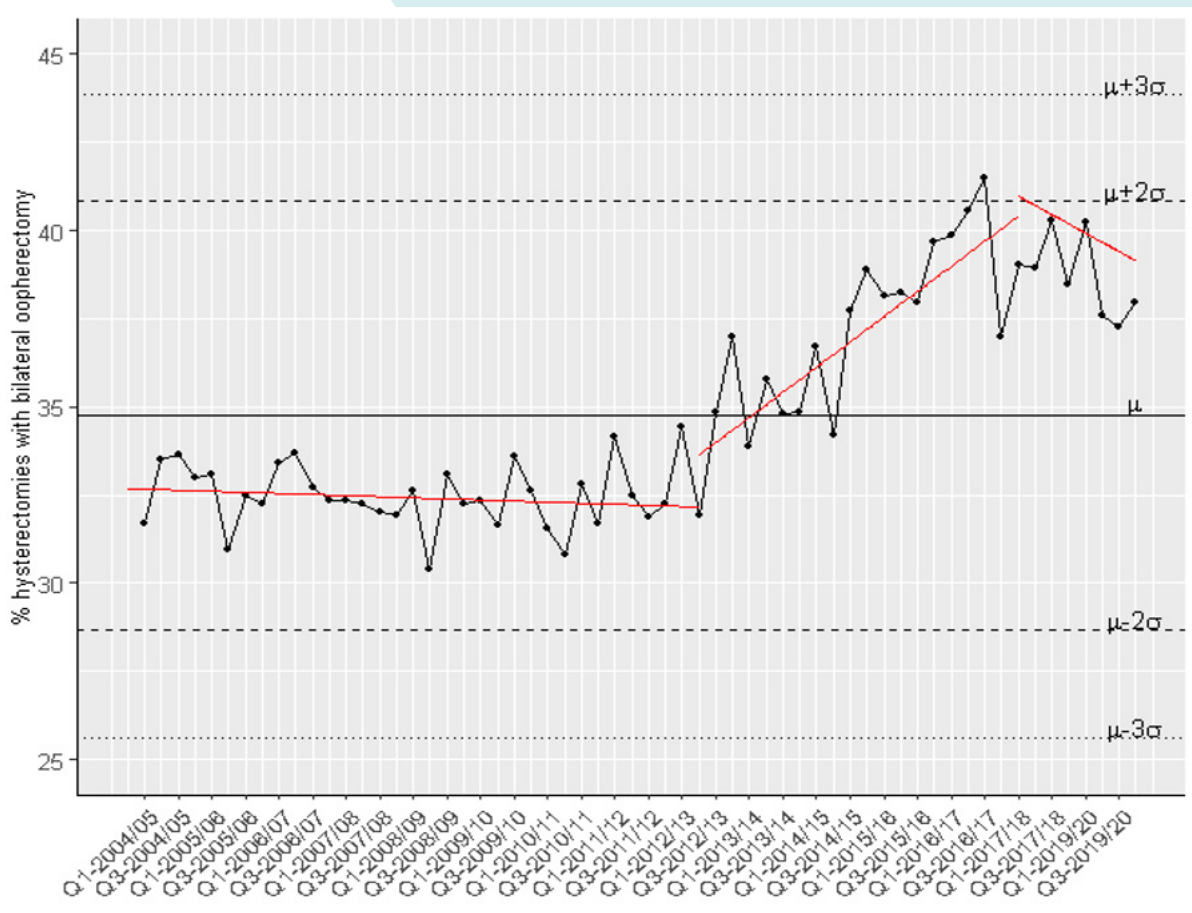
Prior to Q2 2012/13 there appears to be a slight (but non-statistically significant) decrease in the percentage of hysterectomies with bilateral oophorectomy $\beta_1 = -0.015$ (95%CI: -0.0537 - 0.023, $p = 0.432$). In Q2 of 2012/13 there appears to be a significant step-change in the percentage of bilateral operations $\alpha_2 = 1.47$ (95%CI: 0.44-2.50, $p = 0.007$), along with a significant upward change in the direction of the slope $\beta_2 = 0.372$ (95%CI: 0.281 - 0.462, $p < 0.001$). Then, at Q2 2017 there is a non-significant step-change $\alpha_3 = 0.947$ (95% CI: -1.27-3.16, $p = 0.4055$), but there is a significant downward change in slope direction $\beta_3 = -0.618$ (95%CI: -0.957 - -0.279, $p = 0.0007$). This is displayed in the figure overleaf.

We were surprised to see such a clear statistical result but, aware that correlation is not causation, we remain sceptical. On the one hand our findings were published in an influential journal. On the other hand, changing clinical practice often requires more than just publication of evidence, and our publication may have coincided with a random high (although such an observation was not the motivation for the study).

Impactful as the *BMJ* is, we think that at least one of two antecedents would be necessary to change practice in such a short space of time; there would have had to be some form of professional endorsement from a respected organisation or from patients. Our article was accompanied by a press release, but it attracted

only local attention and we think this muted response was insufficient to drive a change in practice.

On the other hand, the subsequent issue of *BJOG: the International Journal of Obstetrics and Gynaecology* (dated 21 April 2017) carried a resume of our article in their 'Research Snippets' section.(2) We will never know whether our article had an influence on practice. And, of course, the operation is a matter for personal choice where increased risk of cardiovascular disease and colon cancer must be traded against a numerically smaller, but for some people more salient, decreased risk of ovarian and breast cancer if the ovaries are removed. We like to think that our findings have usefully informed this decision.



Percentage of hysterectomies with bilateral ovary removal over time (by quarter)

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History Snippets: Triage is a Topic of Investigation in ARC WM, But Where Did It Originate?

Richard Lilford, ARC WM Director

ARC WM Is investigating triage in both maternity care and in ambulance care. The concept of triage arose from the ARC WM Director's hero, [Baron Dominique Larrey](#). Larrey was chief surgeon to the army of Emperor Napoleon. Prior to his time, soldiers who were wounded in battle simply lay where they fell, being retrieved only when the battle was over. Even in the early 19th century time was of the essence following a severe injury. Larrey came up with the idea of *ambulances volantes* – 'flying ambulances'. Instead of waiting for hostilities to cease, horse and carts were sent into the thick of battle so that injured soldiers could be retrieved and treated before they exsanguinated or developed hypothermia. He created a system of triage in order to separate patients who required urgent therapy, from those for whom nothing could be done, or from those who could wait.

Larrey is my hero, not simply because he invented triage, but for the sense of moral purpose with which it was deployed. His method was blind not only to rank, but also to whether the soldier was an enemy combatant. As a result of this egalitarian approach and his caring attitude, he was loved by his men. Larrey was repaid for his even-handed attitude to wounded enemy soldiers. He operated on one of General Blücher's sons and was therefore well-treated when taken into temporary captivity after the battle of Waterloo.

Larrey had many other achievements to his name. To me, he stands out as an exemplary model of an academic doctor; both inventive and caring. His influence is alive and well in ARC WM!

Latest News and Events

Changing Cultures in Health Care: What, Why How?

On **Tuesday 8 March** Prof Russell Mannion is giving the 36th Annual Health Services Research Lecture, as a virtual event running 5:30pm-7pm.

Modern health care policy frequently invokes notions of cultural change as a key means of achieving performance improvement and good quality care. In this lecture Prof Mannion will unpack what is meant by organisational culture and explore the empirical evidence and

key sources of ideas linking culture to health care quality and performance. Further, he will suggest how a more realistic assessment of the task of cultural transformation is warranted.

This is a free event with no need to register. Further details and a link to the webinar can be found at: lshtm.ac.uk/newsevents/events/36th-annual-health-services-research-lecture-professor-russell-mannion.

International Conference on Integrated Care, ICIC22

ARC West Midlands have recently become a knowledge partner of the *22nd International Conference on Integrated Care*, which will take place in the [Odeon](#) in Odense, Denmark, from 23–25 May 2022.

The conference is a partnership with [Healthcare Denmark](#) in cooperation with the [Region of Southern Denmark](#), [Odense University Hospital](#), Municipality of Odense, Campus Odense and [Destination FYN](#). Denmark is among international frontrunners when it comes to integrated healthcare services.

The conference will operate as a hybrid event meaning that people who do not wish to travel can join and present at the conference via video link and present their paper digitally. However, a delegate fee and registration will still be required. There are special subsidised rates for students, and bursary places for patients, carers and community representatives.

ARC WM associates are eligible for a 10% discount, please email ARCWM@warwick.ac.uk

For full details of the conference, please visit: integratedcarefoundation.org/events/icic22-22nd-international-conference-on-integrated-care

National NIHR ARC Newsletters - Dec 21 & Jan 2022



The January issue of the national NIHR ARC newsletter is now [available online](#), with news including work on developing a model to help refugee communities access mental healthcare systems; a report on NHS staff experiences

during COVID-19; the inequality for children growing up in the North of England; and practical guidance on reducing health inequalities at local/regional levels. There are also links to recent blogs and details of upcoming online events.

In addition, the December issue is [also available](#), which features a study that improves maternity care through caseload midwifery; the role pharmacies could play in supporting victims of domestic and sexual abuse; and the launch of an Equality Impact Assessment Toolkit.

To subscribe to future issues, please visit: <https://tinyurl.com/ARCSnewsletter>.

Better Public Involvement Adverts

Mike Bell and Zoe Trinder-Widdess of ARC West are running a free seminar looking at creating better public involvement adverts. The virtual

event will take place on **Monday 14 March 2022**, 1pm-2pm. For more information, and to register, please visit: <https://bit.ly/3nZGkOK>

THIS 2022 PhD Fellowship Programme

The THIS Institute are currently seeking applications from universities for funding for full-time PhD Fellowships. The deadline for application is **Tuesday 15 March 2022**, with

a funding decision to be made by 24 June 2022. For more information and to apply, [please click here](#).

DHSC Evaluation Network - Call for Speakers

The Department of Health and Social Care (DHSC) Evaluation Network is looking for speakers with expertise in policy evaluation to present as part of a series of monthly events. Talks that help colleagues think about practical issues and real-world experiences of designing and delivering evaluations are particularly welcome. To register your interest, please send

a brief summary (<500 words) to: penny.withers@dhsc.gov.uk, isabelle.griffin@dhsc.gov.uk, & sophie.lewis@dhsc.gov.uk with details of your title; a summary of your talk and how it may be relevant; and a bit about you, including areas of interest and academic background. The deadline to apply is **Wednesday 2 February 2022**.

ARC WM Quiz

Born on 28 January 1903, Dame Kathleen Lonsdale was one of the first two women to be elected as a Fellow of the Royal Society. Which scientific area was she considered to have played a fundamental role in establishing?

email your answer to: ARCWM@warwick.ac.uk

Answer to previous quiz: Louis Washkansky, the first recipient of a human donor heart, survived for 18 days post-transplant

Congratulations to Joydeepa Darlong, Alan B Cohen & Alan Hargreaves who were first to answer correctly.



Recent Publications

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