

NOTICE OF LODGMENT
AUSTRALIAN COMPETITION TRIBUNAL

This document was lodged electronically in the AUSTRALIAN COMPETITION TRIBUNAL and has been accepted for lodgment pursuant to the Practice Direction dated 3 April 2019. Filing details follow and important additional information about these are set out below.

Lodgment and Details

Document Lodged: Statement

File Number: ACT 5 of 2021

File Title: RMSANZ APPLICATION FOR REVIEW OF AUTHORISATION
AA1000542 DETERMINATION MADE ON 21 SEPTEMBER 2021

Registry: VICTORIA – AUSTRALIAN COMPETITION TRIBUNAL



REGISTRAR

Dated: 16/05/2022 3:04 PM

Important information

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Lodgement and Details

Document Lodged: Statement of Zoe Adey-Wakeling, President of Rehabilitation Medicine Society of Australia and New Zealand.
Senior Rehabilitation Consultant, Division of Rehabilitation, Aged Care & Palliative Care, Flinders Medical Centre

File Number: Act 5 of 2021

File Title: Application for review of Authorisation Determination made on 21 September 2021

Registry: VICTORIA – AUSTRALIAN COMPETITION TRIBUNAL

Dated: Monday 16 May, 2022

Statement

No: ACT 5 of 2021

IN THE AUSTRALIAN COMPETITION TRIBUNAL

Re: Application for review of Authorisation Determination made on 21 September 2021

Applicant: Rehabilitation Medicine Society of Australia and New Zealand

Statement of: Dr Zoe Adey-Wakeling, President of Rehabilitation Medicine Society of Australia and New Zealand.

Address: Suite 103, 3-5 West St, North Sydney, NSW, Australia

Occupation: Head of Unit, Senior Rehabilitation Consultant, Division of Rehabilitation, Aged Care & Palliative Care, Flinders Medical Centre

Credentials

1. I am the current President of the Rehabilitation Medicine Society of Australia and New Zealand (RMSANZ) and a board member of its company
2. I am a qualified rehabilitation Physician and hold a PhD in Rehabilitation Medicine from Flinders University. I have qualified as a physiotherapist and hold a Bachelor of Applied Science from the University of South Australia
3. I am the immediate past president of the South Australian branch of the RMSANZ
4. Experience as a rehabilitation physician
 - a. I have practiced as a doctor for 18 years and as a Rehabilitation Physician for 11 years.
 - b. I am acknowledged by the International Society of Physical and Rehabilitation Medicine (ISPRM) as the leader of the Australian Society and appoint members to the ISPRM as requested.
 - c. National representation – President RMSANZ; AFRM Research working group
 - d. Current role has International representation at ISPRM and WHO committees as well as the ISPRM national congress to be held in Sydney 2024.
 - e. I was on the board of the RMSANZ and was instrumental in publishing our position statement on rehabilitation following Total Knee Replacement which is an evidence statement indicating criteria for ambulatory and inpatient rehabilitation following total knee replacement surgery¹
 - f. Further, I was the Vice president of the RMSANZ when the guidelines document was published on accessing specialist rehabilitation services following Total Knee Replacement/Total Hip Replacement.²

5. The Rehabilitation Medicine Society of Australia and New Zealand is the peak body representing rehabilitation physicians and has in its constitution, mission statement and aims the role of advocating and promoting health care for those with permanent and temporary disability.³
6. The Rehabilitation Medicine Society of Australia and New Zealand regularly makes submissions to government universities and other health agencies on matters that involve the rehabilitation care of people living with disability be they permanent or temporary.⁴

The definition of the term Rehabilitation

7. The WHO defines rehabilitation as a set of interventions designed to optimize functioning and reduce disability in individuals with health conditions in interaction with their environment⁵
8. The Independent Hospital Pricing Authority (**IHPA**), is an independent agency established by the commonwealth in 2011 to provide independent and transparent advice in relation to funding to public hospitals. It defines rehabilitation as care in which the primary clinical purpose or treatment goal is improvement in the functioning of a patient with an impairment, activity limitation or participation restriction due to a health condition.
9. It also advises that Rehabilitation care is always;
 - delivered under the management of or informed by a clinician with specialised expertise in rehabilitation⁶
 - evidenced by an individualised multidisciplinary management plan which is documented in the patient's medical record. The plan must include negotiated goals within specified time frames and formal assessment of functional ability.⁷
10. The RMSANZ adopts the WHO international definition and regularly reviews all documents published by the RMSANZ to ensure that terminology is concordant with the WHO and ISPRM while reflecting the current health environments of Australia and New Zealand.

RMSANZ's national and International expertise, research and experience in Rehabilitation in the Home

11. In 2004, NSW Health (Agency of Clinical Innovation) developed models of care for rehabilitation of all conditions requiring rehabilitation including post joint replacement rehabilitation. This model of care has been updated 5 times, most recently in 2019. One of the models of care was entitled Rehabilitation in the Home and applied to both the public and private sectors – see p66 of current document⁸
12. In 2016, following further research and development, a principles document has been published by the NSW Health's Agency of Clinical Innovation - Rehabilitation Network which identified the best practice

- for rehabilitation in home. It established standards for care delivery, quantifiable service outputs, key performance indicators and the principles of reducing unwanted clinical variation. These principles enhance patient safety, reduce costs and improve efficiency.⁹
13. In my opinion rehabilitation physicians have taken a lead in the research and development of resources and protocols for patient rehabilitation in the home.
 14. In the Authorisation Applicants' SOFIC there are no references to patient safety or the patient experience; rather, there is significant detail about reduction of cost. This emphasis on cost savings while failing to address patient outcomes is entirely inconsistent with professional experience in dealing with private health insurers (PHIs) in relation to patient rehabilitation in the home.
 15. Since 2004, members of the RMSANZ have been publishing and researching in the area of ambulatory rehabilitation, with a focus of delivering rehabilitation in a variety of settings, including rehabilitation in the home. In 2008 RMSANZ members published the first study internationally comparing day rehabilitation (attending the hospital 3/week for a day's rehab) to rehabilitation in the home. This study indicated that following a rehabilitation physician led model of care, equal clinical outcomes could be achieved when comparing day rehabilitation to rehab in the home. This study led to the development of rehab physicians led, rehabilitation in the home models of care in South Australia.¹⁰
 16. During the period between 2009 and 2014, the Councils of Australian Governments provided funding for enhancements in subacute beds in order to demonstrate to the states the value to patient flow of enhanced resources being directed to the rehabilitation and other subacute sectors (mental health, palliative care, rehabilitation and geriatric evaluation and management).
 17. In NSW, a detailed program was run in the South East Sydney Local Health District, demonstrating the value and resources required to run rehabilitation in the home for a variety of conditions including post-joint replacement rehabilitation. (See Appendix A – the COAG report of outcomes of rehabilitation in the home at St Vincent'p18) Nationally, the value of investing in rehabilitation services and the impact on decreasing length of stay was established, and the results were published in the Medical Journal of Australia.¹¹ This paper called on the Australian government to continue to fund the development of ambulatory models of care including rehabilitation in the home as this study had showed its benefits when rehab physician led.
 18. In 2018, the RMSANZ published two documents on selection criteria for inpatient rehabilitation following joint replacement, emphasising that patient assessment and selection was key to identifying those who would be suitable for ambulatory rehab and those suitable for inpatient rehabilitation, taking into account all clinical, personal and environmental factors.¹²

19. This document serves as a clinical guide for rehabilitation physicians who need to determine the best setting for rehabilitation once rehabilitation has been considered indicated for the patient's condition.
20. In the same year another document was published by the RMSANZ entitled "Guidelines for accessing a Specialist Rehabilitation Medical Service (SRMS) post elective Total Knee Arthroplasty and Total Hip Arthroplasty (TKA/THA)"¹³
In this document, which relies on evidence and publication from national experts and relating to the Australian health environment, it is acknowledged that not all patients who have had a total joint arthroplasty or replacement require specialised rehabilitation of any sort. It re-emphasises the importance of selection criteria and refers to the position statement mentioned in point 10 above. The Guidelines document does however (on p 4) indicate that those suffering complications, or those who fail to meet screening criteria for rehab in the home should be assessed by a rehabilitation physician to review whether the patient is suitable for rehabilitation and in which setting (inpatient, outpatient or home based). According to the board and the members of the RMSANZ, these guides are well used and relevant.
21. As the president of the RMSANZ it is my opinion and that of the majority of our members, that health funds are not experts in the assessment of the appropriateness, or the delivery of, specialised rehabilitation in the home programs.

Relationships with orthopaedic surgeons

22. In my experience, at least a third of all referrals for consultations by a rehabilitation physician come from orthopaedic surgeons or their teams. These requests are for consultations following joint replacement, trauma, fracture and a variety of complicated operations involving bones and joints.
23. Orthopaedic surgeons and rehabilitation physicians, among other specialists, also work together in teams for the management of a number of complex conditions including joint replacements associated with multi-trauma, joint replacement in the setting of cancer treatments and joint replacements following amputation and other disabling condition such as cerebral palsy. For many of these patients the procedure is done electively and not urgently.
24. In my opinion, any contract between a PHI and clinician that offers financial incentives not to refer patients in these settings to rehabilitation physicians would be detrimental to the safety and clinical outcomes of the patient. The template MPPA specifies a target only and does not specify the indications for the elective joint replacement. In these circumstances specialists who had signed MPPAs might find that their clinical decision making may be affected

- by contractual arrangements to meet targets for not referring for inpatient rehabilitation.
25. Many cases of rehabilitation following multi-trauma are funded by third party insurers such as icare NSW which has been identified by nib/HH as suitable to join their intended buying group.¹⁴
26. In the event that the rehabilitation in the home following joint replacement is not coded as a separate episode of care then the RMSANZ agrees that there is no need to refer to a rehabilitation physician. If there is no new episode of care but simple post surgical recovery in the home which is considered as part of normal aftercare then there is no reason to question that the surgeon will medically supervise the aftercare. RMSANZ however believe this to be a clinical decision of the surgeon which should be made independently and outside of contractual or financial influence.

Rehabilitation in the home - a separate episode of care and hospital substitution models

27. If rehabilitation in the home following joint replacement is seen as a separate episode of care from the surgery itself, then according to the Guidelines for Recognition of Private Hospital-Based Rehabilitation Services¹⁵ they must be led by a rehabilitation physician and be delivered from a facility that is registered to provide such services.¹⁶
28. The nib/HH SOFIC suggests that a hospital substitution model may be used in order to receive rehab in the home, from a private hospital. The Hospital substitution model of care is in common use in the public sector where doctors are on salary. Patients are transferred home and receive services paid for by the hospital, including visits from medical specialists in their home. This can be achieved as the doctors are not paid a fee for service but are on salary. This does not occur in the private sector.
29. Rehabilitation Physicians cannot have their services paid for by a PHI unless the patient is receiving rehabilitation as an inpatient in a hospital, as a day rehabilitation patient or as a sessional patient. In the public sector.
30. Public hospitals can pay rehabilitation physicians to deliver rehabilitation in the home program, through a hospital substitution program, as they are salaried and are paid no matter where they deliver care.¹⁷
31. A hospital substitution program allows a hospital to use its funds for inpatient care to pay for therapists and doctors to attend the patient's home and deliver care and rehabilitation in their home. This works well in the public sector where doctors are on salaries and are paid the same whether they work in the hospital or in patient's home delivering care.
32. In my experience, only public hospitals use such a model and their governance resides with the inpatient rehabilitation unit from where they are funded.¹⁸

33. There are only a handful of such a services in the private sector because doctors are mostly not salaried to private hospitals and are only allowed to be paid by PHIs when delivering services in the hospital or day hospital.
34. In the Authorisation Applicant's SOFIC (35d.) Nib/HH referred to a zero out of pocket program for rehab in the home with a private hospital in Victoria.¹⁹
This is an arrangement with Nexus hospitals (Vermont) and relies on an agreement between the hospital and the PHI rather than MPPAs with the specialists. It relates only to patients with the lowest rating of anaesthetic risk, in other words the youngest and fittest.

Financial incentives and Clinical Independence

35. In my experience, as a rehabilitation physician, an academic in clinical medicine and a teacher of rehabilitation medicine, I have never been asked to sign a contract with any employer, academic institution or private entity that required the adherence to clinical targets, or clinical guidelines as proposed by the authorisation applicants.
36. In my opinion, such targets would preclude clinical independence and would result in decisions impacting patient safety becoming influenced by financial incentives rather than sound clinical practice.
37. In my experience, delivering rehabilitation in the home packages in South Australia, decisions are made in the patients' best interests, rather than for financial reason. All parts of the program are carefully communicated to the patient and all arrangements between providers, hospitals and community agencies are open and transparent.
38. Concealing details of a relationship between a specialist and a PHI which would incentivise clinical decision making - one way or the other - risks the undermining the doctor patient relationship and would be anathema to sound clinical practice.
39. As an academic responsible for teaching rehabilitation medicine and the ethics and morals concerning practice in both the private and public sectors, I consider that financial incentives that may influence clinical decision making, lack of transparency in dealing with patients and the notion of providing third parties with confidential patient data to be unethical. Current no gap agreements do not pay doctors a higher fee to attend to targets, influence medical decision making, and follow clinical guidelines provided by the PHI
40. APHRA's good medical practice – a code of conduct for doctors in Australia document (a document has been used in teaching medical ethics for medical undergraduates and specialist in training) which specifically refers to privacy, transparency in communication and conflicts of interest²⁰ speaks to the moral and ethical challenges faced by practitioners who may opt to switch from a no gap or known gap contract to sign and MPPA. For some practitioners facing significant

market forces for the first time, the offer a financially rewarding contract with a buying group that may represent 20% of the market may be daunting. While hospital chains have bargaining power with PHIs, individual doctors do not and many starting their practices may feel overpowered by the market forces at play to be able to resist the financial imperatives of signing.

Patient safety and access to legal remedies

41. According to the authorisation applicants'²¹ – the rehabilitation provider has oversight of the patient for the purposes of rehabilitation, and will escalate any medical issues that arise during the course of such rehabilitation through ordinary clinical pathways to the surgeon who remains responsible for the post-surgical recovery of their patient. This suggests that a provider of services (which may not be a medically trained professional with relevant expertise) would escalate issues through ordinary clinical pathways. Neither the applicable clinical pathways, nor information regarding the decision maker is contained within the template MPPA. It is simply left for clinicians to assume that appropriate measures will be implemented, without any certainty around any of the relevant details.
42. This arrangement of escalation of medical issues does not appear to be part of the template MPPA nor does any role for the patient's general practitioner who may be called to attend patients with post-surgical recovery issues. If general practitioners are involved, there is no constraint on their ability to charge out of pocket costs. In my experience, managing rehabilitation in the home through telehealth, such out of pocket charges are common.

Date: 16th May 2022

Signed:

A handwritten signature in black ink, appearing to read 'Zoe Adey-Wakeling', written in a cursive style.

Dr Zoe Adey-Wakeling

References

- 1 - <https://rmsanz.net/wp-content/uploads/2021/09/180503-FINAL-Positon-Statement-on-Rehabilitation-following-TKR-compressed.pdf>
 - 2 - <https://az659834.vo.msecnd.net/eventsairaeuprod/production-dcconferences-public/d38c0a73a56345b9897c32d32f90b2ce>
 - 3 - <https://rmsanz.net/index.php/aims-objectives/> AND <https://az659834.vo.msecnd.net/eventsairaeuprod/production-dcconferences-public/7d6927f30c9c408eb5dd000534fa19cf>
 - 4 - <https://dcconferences.eventsair.com/MemberPortal/rmsanz-memberships/rmsanz-members/ContentPage/ContentPage?page=5>
 - 5 - <https://www.who.int/news-room/fact-sheets/detail/rehabilitation>
 - 6 - In some settings such as rural and remote hospitals or facilities where rehabilitation physicians are not appointed or inaccessible then clinicians with specialised expertise in rehabilitation such as geriatricians or senior general practitioners take on that role
 - 7 - <https://www.ihoa.gov.au/what-we-do/rehabilitation-care>
 - 8 - <https://aci.health.nsw.gov.au/resources/rehabilitation/rehabilitation-model-of-care/NSW-Rehabilitation-MOC.pdf>
 - 9 - https://aci.health.nsw.gov.au/data/assets/pdf_file/0014/500900/rehabilitation-principles.pdf
 - 10 - <https://academic.oup.com/ageing/article/37/6/628/40528?login=true>
 - 11 - <https://www.mja.com.au/journal/2013/199/2/subacute-care-funding-firing-line>
 - 12 - <https://rmsanz.net/wp-content/uploads/2021/09/180503-FINAL-Positon-Statement-on-Rehabilitation-following-TKR-compressed.pdf>
 - 13 - <https://az659834.vo.msecnd.net/eventsairaeuprod/production-dcconferences-public/d38c0a73a56345b9897c32d32f90b2ce>
 - 14 - Authorisation Applicant SOFIC 11 (a)(iii)
 - 15 - August 2016, <https://www.privatehealthcareaustralia.org.au/wp-content/uploads/Guidelines-for-Recognition-of-Private-Hospital-Based-Rehabilitation-Services-AUGUST-2016-FINAL.pdf>
- written by the Consultative Committee on Private Rehabilitation, which is a national industry committee comprising representatives of the Australasian Faculty of Rehabilitation Medicine, Private Healthcare Australia, the Australian Private Hospitals Association, the Department of Veterans' Affairs and the Private Health Insurance Ombudsman.
- 16 - <https://www.privatehealthcareaustralia.org.au/wp-content/uploads/Guidelines-for-Recognition-of-Private-Hospital-Based-Rehabilitation-Services-AUGUST-2016-FINAL.pdf>
 - 17 - Central Adelaide Rehabilitation Service Model of Care 2016 - <http://www.cpsu.asn.au/upload/2016-Info-Updates/UPDATED-General-Rehabilitation-SubAcute-Model-of-Care-30-Nov-2016.pdf>
 - 18 - Central Adelaide Rehabilitation Service Model of Care 2016 - <http://www.cpsu.asn.au/upload/2016-Info-Updates/UPDATED-General-Rehabilitation-SubAcute-Model-of-Care-30-Nov-2016.pdf>
 - 19 - <https://www.medibank.com.au/livebetter/newsroom/post/medibank-joins-nexus-hospitals-joint-replacement-surgery-trial-guaranteeing>
 - 20 - <https://www.medicalboard.gov.au/Codes-Guidelines-Policies/Code-of-conduct.aspx>
 - 21 - SOFIC, (78a)

Appendix A

REHABILITATION MEDICINE SOCIETY OF AUSTRALIA AND NEW ZEALAND

RMSANZ Private Practice Special Interest Group

Position Statement on Rehabilitation following Total Knee Replacement

Introduction:

Data from the previous 10 years in Australia and the USA have shown that there are significant numbers of patients being referred for inpatient rehabilitation following total joint arthroplasty. Currently in Australia, 40% of privately insured and 20% of patients from public hospitals are referred for inpatient rehabilitation [1]. The US health system with its managed care policies and the 2007 changes to the US Medicare rules, has deliberately affected referrals so that smaller numbers receive inpatient rehabilitation and larger numbers are being referred for home based rehabilitation [2]. From 1998-2009 the numbers being referred for inpatient rehabilitation halved to 13% of TKR in 2009 and the number of those referred to home based rehabilitation doubled to 30% [2].

Notwithstanding, there is an increase in numbers of TKRs being undertaken globally with a growth rate of 5-17% pa quoted in international literature [3]. Of concern, 25% of those having knee arthroplasty do not make minimally important clinical gains by 6 months [4]. A further 15% of patients report moderate to severe pain 2 years after surgery [5], while 20% of patients report moderate-to-severe activity limitations at 24 months post TKR [6], which suggests the need to offer better clinical and patient reported outcomes through appropriate referred post-operative rehabilitation courses of treatment.

Due to the rising number of total knee replacements being performed and improvements in the quality of surgical care and prosthetics [7], together with a downward pressure on costs in the private health sector (where much of the private arthroplasty surgery is taking place), many patients are being transferred for rehabilitation in the home following surgery without review of the clinical indications for post joint arthroplasty rehabilitation. Indeed the available evidence to date indicates that rehabilitation physicians are rarely consulted to identify the clinically appropriate setting for rehabilitation. In an environment where non-clinical drivers such as commercial interests, business models, consumerism and transport costs will often dictate the settings for rehabilitation care, the RMSANZ feel that there is a need to state the clinical indicators and minimum safety standards for rehabilitation settings post-TKR.

The RMSANZ and its Private Practice Special Interest Group have undertaken a review of the literature and discussed the clinical indicators and safety standards for rehabilitation across 4 settings of rehabilitation [8]: in-reach; inpatient; outpatient; and ambulatory settings. The document below presents clinical indicators for rehabilitation following joint replacement in the ambulatory setting.

Further, in relation to the constitution and mission of the RMSANZ to both “advocate for our patients” and “promote professional education”, the following position statement is offered to clarify clinical need for services and minimum safety standards for care in post knee replacement rehabilitation.

Clinical indicators for home-based rehabilitation:

All patients and clinicians who wish to refer patients for ambulatory rehabilitation following TKR need to have a rehabilitation assessment post-operatively. This assessment needs to be undertaken by a rehabilitation physician or on behalf of a rehabilitation physician who will take responsibility for the decision being made.

Current evidence suggests that clinical indicators for home-based rehabilitation should include all of the following:

- a. 71 years of age or younger [9]
- b. Have no post-operative complications
- c. Have adequate social supports
- d. Have someone living at home with them
- e. Less than 5 comorbidities, with no comorbidity affecting the ability to undertake aerobic exercise [10, 11]
- f. Able to walk >35% of the expected final 6 Minute Walk Test distance, at 2-weeks post-operation [12]

Minimum safety standards for home-based rehabilitation:

In studies of home-based rehabilitation following joint replacement, patients who have one or more of the following criteria are typically excluded from trials of home-based rehabilitation, or noted to have poorer outcomes:

- a. Over the age of 72 years
- b. More than 5 comorbidities
- c. Obese
- d. Poor social supports
- e. Living alone
- f. Complicated surgery
- g. Poverty/low socioeconomic status
- h. TKR revision
- i. Bilateral joint replacements
- j. Not being able to ambulate prior to surgery
- k. At high risk of referral to a nursing home or respite care
- l. Inflammatory arthritis, septic arthritis or traumatic arthritis as a cause

(see [11, 13-17])

Therefore it is recommended that patients be assessed post-operatively to ensure that they do not have any of the indicators for inpatient admission stated above as the safety of these patients being managed at home by allied health or nursing staff have not been tested and may result in poorer clinical outcomes, and/or higher readmission rates for conditions such as wound infection and joint stiffness requiring manipulation under anaesthesia.

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As home-based rehabilitation may be associated with a higher infection rate [14] or joint stiffness rate at risk of requiring manipulation under anaesthesia [18, 19], it is recommended that therapists and/or nurses delivering home-based rehabilitation have an ability to contact and coordinate care with doctors who are trained in or have experience in post-surgical rehabilitation including a rehabilitation physician, a general physician or a general practitioner.

Further, the RMSANZ do not recommend that those patients at higher risk of MUA [20-22] are referred for ambulatory rehabilitation as their risks of readmission for MUA are higher than the standard population. From literature to date [22], these risk factors include:

- a. low socioeconomic status
- b. poor pre-operative knee range of movement
- c. diabetes, and
- d. hypothyroidism

Decision making for post-TKR rehabilitation:

While RMSANZ acknowledges that there may be non-clinical drivers to select inpatient rehabilitation for many patients [1], including patient drivers (such as previous experience, insurance entitlements, concepts of improved safety); surgical drivers (such as surgeon preference and location of rehabilitation facilities); and economic drivers (such as cost of transportation, private hospital business models and private health fund insurance product structures); it is primarily the clinical indicators that should determine the need for a clinically relevant service delivered in a setting that is safe for patients. As such RMSANZ recommends that all patients undergoing TKR have a rehabilitation assessment post-operatively to determine whether they have clinical indicators that allow for safe and effective ambulatory rehabilitation.

Telemedicine for post TKR rehabilitation:

The RMANZ notes the relevance and importance of telemedicine as an alternative to face-to-face care for those living remotely or for those who cannot receive other forms of ambulatory or inpatient rehabilitation. However the RMSANZ recommends further research in this area over and beyond currently published patient satisfaction, non-inferiority and cost effectiveness studies [23-26]. Larger studies are needed to ensure safety of patients and ensure that outcomes are maintained over time.

Summary of Recommendations:

1. That all patients undergoing TKR have a rehabilitation assessment post-operatively to determine whether they have clinical indicators that allow for safe and effective ambulatory rehabilitation.
2. That no patient be referred for home based rehabilitation until their safety for rehabilitation in this setting is assessed post operatively by a rehabilitation physician or another physician qualified in prescribing home based rehabilitation programs.

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3. That therapists and/or nurses delivering home-based rehabilitation have an ability to contact and coordinate care with doctors who are trained and qualified in managing patients during post-surgical rehabilitation including a rehabilitation physician, a general physician or a general practitioner.
4. That those patients at higher risk of Manipulation Under Anaesthesia (lower socioeconomic status, diabetic, those with hyperthyroidism and those with poor range of movement post-operative) are not referred for ambulatory rehabilitation as their risks of readmission for MUA are higher than the standard population.
5. That further research in tele-rehabilitation service delivery be undertaken in the area of post joint arthroplasty rehabilitation.

References:

1. Buhagiar MA, Naylor JM, Simpson G, Harris IA, Kohler F. Understanding consumer and clinician preferences and decision making for rehabilitation following arthroplasty in the private sector. *BMC health services research* 2017;**17**:415.
2. Ong KL, Lotke PA, Lau E, Manley MT, Kurtz SM. Prevalence and Costs of Rehabilitation and Physical Therapy After Primary TJA. *The Journal of arthroplasty* 2015;**30**:1121-6.
3. Kurtz SM, Ong KL, Lau E, Widmer M, Maravic M, Gomez-Barrena E, et al. International survey of primary and revision total knee replacement. *International orthopaedics* 2011;**35**:1783-9.
4. Maxwell JL, Felson DT, Niu J, Wise B, Nevitt MC, Singh JA, et al. Does clinically important change in function after knee replacement guarantee good absolute function? The multicenter osteoarthritis study. *The Journal of rheumatology* 2014;**41**:60-4.
5. Beswick AD, Wylde V, Goberman-Hill R, Blom A, Dieppe P. What proportion of patients report long-term pain after total hip or knee replacement for osteoarthritis? A systematic review of prospective studies in unselected patients. *BMJ open* 2012;**2**:e000435.
6. Singh JA, O'Byrne M, Harmsen S, Lewallen D. Predictors of moderate-severe functional limitation after primary Total Knee Arthroplasty (TKA): 4701 TKAs at 2-years and 2935 TKAs at 5-years. *Osteoarthritis and cartilage* 2010;**18**:515-21.
7. AustralianOrthopaedicAssociationNationalJointReplacementRegistry. Hip, Knee and Shoulder Arthroplasty - Annual Report 2016 Adelaide, Australia 2016.
8. ACI. NSW REhabilitation Model of Care - Care Settings NSW Agency for Clinical Innovation 2017 [15/12/2017]. Available from: <https://www.aci.health.nsw.gov.au/resources/rehabilitation/rehabilitation-model-of-care/rehabilitation-moc/care-settings>.
9. MedicalAdvisorySecretariat. Physiotherapy rehabilitation after total knee or hip replacement: an evidence-based analysis Toronto, Canada: Ontario Ministry of Health and Long-Term Care 2005.
10. Ong KL, Lau E, Suggs J, Kurtz SM, Manley MT. Risk of subsequent revision after primary and revision total joint arthroplasty. *Clinical orthopaedics and related research* 2010;**468**:3070-6.
11. Fransen M, Nairn L, Bridgett L, Crosbie J, March L, Parker D, et al. Post-Acute Rehabilitation After Total Knee Replacement: A Multicenter Randomized Clinical Trial Comparing Long-Term Outcomes. *Arthritis care & research* 2017;**69**:192-200.

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 Email: admin@rmsanz.net Website: www.rmsanz.net

12. Naylor JM, Crosbie J, Ko V. Is there a role for rehabilitation streaming following total knee arthroplasty? Preliminary insights from a randomized controlled trial. *Journal of rehabilitation medicine* 2015;**47**:235-41.
13. de Pablo P, Losina E, Phillips CB, Fossel AH, Mahomed N, Lingard EA, et al. Determinants of discharge destination following elective total hip replacement. *Arthritis and rheumatism* 2004;**51**:1009-17.
14. Zmistowski B, Restrepo C, Hess J, Adibi D, Cangoz S, Parvizi J. Unplanned readmission after total joint arthroplasty: rates, reasons, and risk factors. *The Journal of bone and joint surgery American volume* 2013;**95**:1869-76.
15. Naylor JM, Hart A, Mittal R, Harris I, Xuan W. The value of inpatient rehabilitation after uncomplicated knee arthroplasty: a propensity score analysis. *The Medical journal of Australia* 2017;**207**:250-5.
16. Buhagiar MA, Naylor JM, Harris IA, Xuan W, Kohler F, Wright R, et al. Effect of Inpatient Rehabilitation vs a Monitored Home-Based Program on Mobility in Patients With Total Knee Arthroplasty: The HIHO Randomized Clinical Trial. *Jama* 2017;**317**:1037-46.
17. Austin MS, Urbani BT, Fleischman AN, Fernando ND, Purtill JJ, Hozack WJ, et al. Formal Physical Therapy After Total Hip Arthroplasty Is Not Required: A Randomized Controlled Trial. *The Journal of bone and joint surgery American volume* 2017;**99**:648-55.
18. Coyte PC, Young W, Croxford R. Costs and outcomes associated with alternative discharge strategies following joint replacement surgery: analysis of an observational study using a propensity score. *Journal of health economics* 2000;**19**:907-29.
19. Riggs RV, Roberts PS, Aronow H, Younan T. Joint replacement and hip fracture readmission rates: impact of discharge destination. *PM R* 2010;**2**:806-10.
20. Chughtai M, McGinn T, Bhave A, Khan S, Vashist M, Khlopas A, et al. Innovative Multimodal Physical Therapy Reduces Incidence of Repeat Manipulation under Anesthesia in Post-Total Knee Arthroplasty Patients Who Had an Initial Manipulation under Anesthesia. *The journal of knee surgery* 2016;**29**:639-44.
21. Su EP, Su SL, Della Valle AG. Stiffness after TKR: how to avoid repeat surgery. *Orthopedics* 2010;**33**:658.
22. Issa K, Rifai A, Boylan MR, Pourtaheri S, McInerney VK, Mont MA. Do various factors affect the frequency of manipulation under anesthesia after primary total knee arthroplasty? *Clinical orthopaedics and related research* 2015;**473**:143-7.
23. Shukla H, Nair SR, Thakker D. Role of telerehabilitation in patients following total knee arthroplasty: Evidence from a systematic literature review and meta-analysis. *Journal of telemedicine and telecare* 2017;**23**:339-46.
24. Russell TG, Buttrum P, Wootton R, Jull GA. Internet-based outpatient telerehabilitation for patients following total knee arthroplasty: a randomized controlled trial. *The Journal of bone and joint surgery American volume* 2011;**93**:113-20.
25. Moffet H, Tousignant M, Nadeau S, Merette C, Boissy P, Corriveau H, et al. In-Home Telerehabilitation Compared with Face-to-Face Rehabilitation After Total Knee Arthroplasty: A Noninferiority Randomized Controlled Trial. *The Journal of bone and joint surgery American volume* 2015;**97**:1129-41.
26. Tousignant M, Moffet H, Boissy P, Corriveau H, Cabana F, Marquis F. A randomized controlled trial of home telerehabilitation for post-knee arthroplasty. *Journal of telemedicine and telecare* 2011;**17**:195-8.

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CURRICULUM VITAE

Dr Zoe Adey-Wakeling

PhD, FAFRM (RACP), BMBS, BAppSc, AFRACMA, AAICD
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I am a Senior Consultant in Rehabilitation Medicine and Head of Unit, SALHN Rehabilitation, with more than 15 years of clinical experience in my chosen field. I build a culture of authentic mutual respect, and believe in building opportunities for the people I work with. My clinical practice is patient-centred and evidence-based, and built upon a philosophy of continuous quality improvement. I am passionate about research that provides enhanced patient experience and equitable access to specialised healthcare.

Qualifications

2019	Associate Member AAICD Australian Institute of Company Directors
2019	Associate Fellow AFRACMA Faculty of Royal Australasian College of Medical Administrators
2016	Doctor of Philosophy PhD Flinders University of South Australia Thesis entitled: <i>Hemiplegic Shoulder Pain: Studies in Epidemiology, Assessment and Management.</i>
2011	Fellow FAFRM (RACP) Australasian Faculty of Rehabilitation Medicine Royal Australian College of Physicians
2004	Bachelor of Medicine and Bachelor of Surgery BMBS Flinders University of South Australia
1998	Bachelor of Applied Science (Physiotherapy) BAppSc University of South Australia

Career Summary

21-25 Feb 2022	Acting Executive Director of Medical Services Southern Adelaide Local Health Network (SALHN)
24-28 Oct 2021	
14 Jun-9 Jul 2021	
24 May-29 May 2021	
4 Jan-8 Jan 2021	
28 Sep-9 Oct 2020	
Jan-Feb 2022	SALHN Executive Reserve Roster, EDMS Cover; COVID Incident Management Team

28 Jun-13 Jul 2020	Acting Director, Division Rehabilitation Aged and Palliative Care
15 Mar 2022-current	Head of Unit, Rehabilitation Division of Rehabilitation, Aged Care and Palliative Care Southern Adelaide Local Health Network
28 Feb-11 Mar 2022 20 Dec-24 Dec 2021 14 Jun 2021-22 Jun 2021 1 Feb 2021-15 Feb 2021 29 Dec 2020-8 Jan 2021 12 Feb-9 Mar 2020 12 Feb-16 Mar 2018	Acting Head of Unit, Rehabilitation Division of Rehabilitation, Aged Care and Palliative Care Southern Adelaide Local Health Network
Aug 2011-current	Senior Rehabilitation Consultant Southern Adelaide Local Health Network (SALHN) Repatriation General Hospital / Flinders Medical Centre 1.0FTE from 2017
Feb 2021-current	Secondment 0.2FTE to Flinders University of South Australia Teaching Specialist, Chair Progress Test Committee MD Program
Jul 2015-Feb 2017	Private Driving and Health Specialist - 0.1 FTE Griffith Rehabilitation Hospital
Jan 2013-Dec 2014	Visiting Rehabilitation Consultant - 0.1FTE Mt Gambier Hospital, Country Health SA
Jan 2007-Aug 2011	Rehabilitation Medicine Registrar 2007: General Rehabilitation, RGH 2008: Spinal and Brain Injury Registrar, HRC 2009: Research Registrar, RGH 2010: Triage Registrar, RGH / FMC 2010: Stroke Fellow, FMC 2011: Senior Registrar– Triage, Research, Country
Oct 2006-Mar 2007	<i>Maternity Leave</i>
Jan 2006-Oct 2006	Resident Medical Officer Rehabilitation wards, Repatriation General Hospital
Jan 2005-Jan 2006	Post Graduate Intern Development Flinders Medical Centre
Jan 1999-Nov 2004	Physiotherapist Griffith Rehabilitation Hospital Full time 1999-2000; part-time 2000-2004

Flinders University of South Australia

Academic Status:

2016 (Current) **Senior Lecturer (Academic Level C)**
Full Academic Status

2012-2016 **Lecturer (Academic Level B)**
Full Academic Status

Flinders University, College of Medicine and Public Health, Doctor of Medicine Program:

2021- **Chair, Progress Test Committee**, Doctor of Medicine
0.2FTE secondment

2021 **Learning Coach Community of Practice**

2019-current **Learning Coach**, Doctor of Medicine

2021 **MD Admissions** working group

2019-current **Interview Panel Member**, MD Admissions
Local and international intake interviews

2015-current **Year 2 MD OSCE:**
Coordinator of Div RAP stations and examiners from 2017
Examiner 2015-current

2015-current **Year 2 MD Chronic Block** Teaching
Simulation Training 2018-2020

2011-current **Year 3 and 4 MD clinical placements**
Supervision 2011-current
Placement Coordination 2017-current

Research Student Supervision:

2020-current HDR Research Flinders University;
PhD Associate Supervisor, Claire Spargo
Primary Supervisors S George, K Laver, A Berndt

Driving in people with mild cognitive impairment (MCI): current practice and perspectives amongst people with MCI, occupational therapists and medical practitioners.

Awards: 2019 Dementia Australia Research Foundation 2019 Dementia Grants Program – PhD Scholarship

HDR Supervisor Development Program, FUSA

2018-2019 HDR Research Flinders University;

Masters Associate Supervisor, Claire Spargo

2017-2019 **Supervisor;** Longitudinal MD research student, Flinders University
ObaaYaa Bonsu
External Reviewer; Longitudinal MD research student, Flinders
University; Natasha Tham

Flinders University, Course Teaching:

2016-current Flinders University Occupational Therapy Driver Assessment &
Rehabilitation Intensive Course; Medical Lead

Aug, Nov 2016 Flinders University Clinical Rehabilitation Short Courses: Driver
Assessment and Rehabilitation for GPs

2014, 2016 Flinders University Neurophysiotherapy Masterclass Series, Lecturer

Prizes and Awards

2021 **Catherine House Catherine McAuley Award**
*In recognition of the long history the Kym Adey Scholarship has had
supporting education opportunities for women who have experienced
homelessness*

2014 **Vice Chancellor’s Best Student Research Paper Award**
Flinders University of South Australia
*Adey-Wakeling Z, Crotty M, Shanahan EM. Suprascapular Nerve Block For
Shoulder Pain In the First Year After Stroke: A Randomised Controlled Trial.
Stroke. 2013;44: 3136-3141*

2013 **Clinician’s Special Purpose Fund Prize for Clinical Research in
Medicine**
Flinders University and Flinders Medical Centre
*Adey-Wakeling Z, Crotty M, Shanahan EM. Suprascapular Nerve Block For
Shoulder Pain In the First Year After Stroke: A Randomised Controlled Trial.
Stroke. 2013;44: 3136-3141*

Committees and Appointments

National COVID-19 Clinical Evidence Taskforce

- Guidelines Leadership Group; representative for Rehabilitation (RMSANZ) 2022

International Society of Physical Rehabilitation and Medicine

- Local Organising Committee, Scientific Conference 2024

Rehabilitation Medicine Society Australia and New Zealand (RMSANZ)

- President, RMSANZ November 2021-current
- President Elect, RMSANZ November 2020- November 2021
- Vice President, RMSANZ 2019-November 2021
- Director, RMSANZ Board 2018-current
- Board Governance Sub-Committee Member, 2019-current
- Chair, RMSANZ Advisory Council 2019-2021
- Chair, RMSANZ Ambulatory Rehabilitation Working Party 2021-2022
- Member, RMSANZ COVID-19 Working Party, 2021
- Chair, RMSANZ SA/NT State Branch 2019-current
- Branch Secretary, RMSANZ SA/NT State Branch 2017-2019
- Co-Convener for RMSANZ Annual Scientific Meeting 2019
- Invited member of RMSANZ Scientific Committee, 2018-current
- Scientific Meeting Academic Reviewer –
 - Abstract Submissions for Annual Scientific Meeting 2016, 2018, 2019
- SA Representative RMSANZ ASM 2017 Organising Committee

Australasian Faculty of Rehabilitation Medicine (Royal Australian College Physicians)

- AFRM (RACP) Adrian Paul Prize Reviewer 2022
- RACP Foundation Research Grant Reviewer 2021
 - RACP AFRM Research Entry Scholarship
 - RACP AFRM Research Development Scholarship
 - RACP AFRM Educational Development Grant
- RACP Gender Equity Reference Group 2021
- AFRM Accreditation Subcommittee Member 2018-current
- AFRM Module 3 Coordinator 2018-current
- AFRM Module 3 Research Assignment Assessor 2015-current
- AFRM Research Working Group 2016-current
- AFRM Research Mentor for Registrars 2017-current
- AFRM Register of Examiners 2017-current
- Adrian Paul Prize Reviewer 2020, RACP Foundation
- AFRM State Branch Secretary 2017-2019
- AFRM Fellowship Written Exam; MCQ Writer 2017
- AFRM SA State Branch Annual Scientific Meeting Convener 2015
- AFRM Chair Working Party on Driving Assessment; Policy and Advocacy 2013-14
- AFRM Module 2 Examination Working Party Member 2014-2015
- AFRM SA Branch Trainee Representative 2010
- AFRM Trainee Committee Representative 2009-2010

Southern Adelaide Local Health Network

- Clinical Lead, SALHN Goals of Care Stream, Total Quality Care Program 2021
- Chair, Medication Safety Committee (ACSQHC National Standard 4) 2019-2020
- Clinical Council 2019-2020
- Medical Advisory Committee 2019-current
- Clinical Human Research Ethics Committee Member 2015-2018
- Falls Prevention and Management Committee; Medical Representative 2018-2019
- Clinical Activity Taskboard Implementation Committee 2018

SA Health

- Statewide Digital Health SA Restorative & Extended Care, Subacute Clinical Specialty Group Member 2019-current

Transforming Health

- Co-Chair of the Acute Rehabilitation Expert Working Group 2016

Division of Rehabilitation, Aged Care and Palliative Care, SALHN

- Research and Innovation and Clinical Evidence Committee 2021-
- Mentor, Emerging Leaders Program 2021
- Training Program Director, Department Rehabilitation Feb 2019-current
- Death Audit Committee 2016-current
- Clinical Governance Committee 2018-current

Clinical Supervisor

- *Nurse Practitioner Candidate (Stroke)* 2017-2020
- *Stroke Liaison Nurse* 2018-2019

SA Clinical Senate

- Health Technology Assessment and Disinvestment within SA Health Meeting
- Appointed as Emerging leader Oct 2013

Statewide Rehabilitation Clinical Network

- Steering Committee Member 2013-2015
- Services Description Working Group 2013

South Australian Rehabilitation Research Forum

- Committee Member 2012-2013

Research and Clinical Teaching

Research Grants:

Current Category 1			
Year	Amount	Funder	Investigators / Title
2022-2024	\$1,116,756	2022 MRFF	
Under EMBARGO			
2022-2024	\$2,996,464	2021 MRFF Clinician Researcher: Applied Research in Health Grant	CI team: Prof Natasha Lannin, Dr Laura Jolliffe, Dr Katheryn Scrivener, Dr Zoe Adey-Wakeling , Prof David Berlowitz, Brynn Lewin, Dr Louis Baggio, Dr Brian Anthonisz, Alanna Grover, Dr Carlos Garcia Esperon, Dr Owen Howlett PROMOTE: A Cluster-Randomised Implementation Trial to Promote Evidence Use
2022-2024	\$999,056	2020 MRFF Cardiovascular Health Mission Grant #2008141	CI team: Prof Natasha Lannin, A/Prof Kate Radford, Prof Maria Crotty, Prof Amanda Farrin, Prof Anne Holland, Dr Dana Wong, Dr Laura Jolliffe, Prof Geoffrey Cloud AI: Sophie O'Keefe, Sarah D'Souza, Prof Jennie Ponsford, Dr Narelle Cox, A/Prof Erin Godecke, Dr Zoe Adey-Wakeling , Mithu Palit, Prof Steven Faux, Prof Carolyn Unsworth, Prof Dominique Cadilhac New Models of Rehabilitation to Improve Work and Health Outcomes After Stroke
Current Other			
2022-2023	\$199,072	2021 Lifetime Support Authority (LSA) Stream 1 Research Grant #R21013	CI team: Prof Maria Crotty, Prof Garry Stewart, Prof Susan Hillier, A/Prof Maayken van den Berg, Dr Zoe Adey-Wakeling A dance program to improve physical function in individuals with recent ABI: A feasibility study conducted at Flinders Medical Centre in partnership Australian Dance Theatre
2022-2023	\$19,000 + GST	2021 The Hospital Research Foundation Group (THRF) Local Impact Grant #2021/66-90-83100-01	Dr Zoe Adey-Wakeling and Dr Diana Lawrence SALHN Goals of Care; What Matters to You? Adding value at the patient -clinician interface
Previous			
2010	\$9,051	Foundation Daw Park	Dr Zoe Adey-Wakeling

Grant, Repatriation General Hospital	Suprascapular Nerve Block for Hemiplegic Shoulder Pain
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Research steering committees:

- | | |
|-----------|---|
| 2017-2019 | <p>What is the most effective type of driver rehabilitation for individuals post traumatic brain injury? A comparison of driving instructor lessons and driving simulator interventions.</p> <ul style="list-style-type: none"> ○ Lifetime Support Authority: \$101,100.00 ○ George S, Crotty M, Laver K, Berndt A, Aitchison A, Barr C, and Dolling M. |
| 2016-2018 | <p>Supporting people with complex trauma injuries and their families to maximise participation through community mobility.</p> <ul style="list-style-type: none"> ○ Lifetime Support Authority: \$92 037.00 ○ George, S, Liddle J, Crotty M, Barr C. |

Manuscript Peer Reviewer:

- Archives of Rehabilitation Research and Clinical Translation 2021 – companion journal to Archives PMR [Q1]
- Australian Occupational Therapy Journal 2020 [Q1]
- Archives of Physical Medicine and Rehabilitation Jan 2018-2020 [Q1]
- American Journal of Physical Medicine and Rehabilitation 2016-2020 [Q2]
- Topics in Stroke Rehabilitation 2016- 2017 [Q1]
- International Journal of Neuroscience 2016 [Q3]

Course Teaching:

- SAAS Intern Professional Development Training Lecture Series 2019-2020
 - Introduction to Stroke
 - Elements of Successful Acute Stroke Management
- SALHN Division Rehabilitation, Aged Care and Palliative Care 2019
 - Principles and Practice of Rehabilitation June 2019
 - Brain Function after Stroke Jul 2019
- RACP Advanced Trainees in Geriatrics Lecture Series 2018 and 2020
 - Invited Speaker on Driving
- Repatriation General Hospital Nursing Rehabilitation Course 2009

Flinders Medical Centre and Repatriation General Hospital Grand Rounds:

- Driving and Visual Deficits: Clinical, Legal and Ethical Considerations
 - Co-Presentation with Neuro-optometrist Neil Murray
 - Flinders Medical Centre 12 August 2021
- Driving Assessment: Legislation, Mandatory Reporting, Assessment Approach, & Considerations in an Ageing Population
 - Co-Presentation with A/Prof Stacey George,
 - Flinders Medical Centre 30 May 2019
- Driving and Community Mobility: Review and What's New
 - Co-Presentation with A/Prof Stacey George and Ms Amy Nussio

- Flinders Medical Centre 9 Sep 2016
- Clinician's Special Purpose Prize Presentation: Hemiplegic Shoulder Pain
 - Flinders Medical Centre 6 Mar 2014

Hospital Quality Improvement Activities

- Medical lead; PROFITS Falls Prevention Program 2018-current
- Hypoglycaemia (HAC) Audit; Medication Safety Committee Auditor 2020
- Safety Learning System (SLS) Medication Safety thematic analysis 2020
- Electronic Medical Taskboard Implementation 2017
- Family Meeting Quality Project; Health Literacy improvement project 2017-2019
- Family Meeting Quality Project; Consumer Feedback Audit 2017
- Medical Driving Assessment for Country Clients via Telehealth Audit 2016

Registrar Training

Training Setting Coordinator, Australasian Faculty of Rehabilitation Medicine 2019-2022

- Coordinate allocation of clinical supervisors
- Coordinate trial exams 2017-2019
- Orientation of Rehabilitation Trainees and Night Interns
- Term and Site Accreditation

Consumer Partnership Activities

- SALHN Total Quality of Care Program, Goals of Care; *What Matters to You?*
 - Clinical lead in co-design project on shared decision making
- SALHN Division of Rehabilitation, Aged and Palliative Care Partnering with Consumers Committee 2018-current
- Presenter, Stroke Support Group meetings 2018-2019

Publications

<https://orcid.org/0000-0001-9231-5250>

Sapphire Member ID: RES-ID-1135038

1. **Adey-Wakeling Z**, Joliffe L, O'Shannessy E, Hunter P, Morarty J, Cameron I, Liu E, Lannin N. Activity, participation and goal-awareness after acquired brain injury: A prospective observational study of inpatient rehabilitation. *Annals of Rehabilitation Medicine*. Dec 2021;45(6):413-421. DOI:10.5535/arm.21034
2. Spargo C, Laver K, Berndt A, **Adey-Wakeling Z**, George S. Mild cognitive impairment and fitness to drive: An audit of practice in a driving specialist clinic in Australia. *Australian Journal on Ageing*. Oct 2021; DOI: 10.1111/ajag.13024
3. Gray J, Roseleur J, Edney L, Karnon J, the **Southern Adelaide Local Health Network Hypoglycaemia Clinical Working Group**. Pragmatic review of interventions to prevent inpatient hypoglycaemia. *Diabetic Medicine*. 2021;00:e14737; DOI:10.1111/dme.14737
4. Dyer S, Mordaunt D, **Adey-Wakeling Z**. Interventions for post-stroke shoulder pain: An overview of systematic reviews. *International Journal of General Medicine* 2020; 13; 1411-1426 [IF 2.466; SJR 0.722; Q2 Medicine (Miscellaneous)]
5. Spargo C, Berndt A, Laver K, **Adey-Wakeling Z**, George S. A systematic review of occupational therapy interventions to improve driving performance in older people with early stage dementia and mild cognitive impairment. *American Journal of Occupational Therapy* 2020; Volume 75, Issue 5
6. **Adey-Wakeling Z**, Liu E, Crotty M, Leyden J, Kleinig T, Anderson C, Newbury J. Hemiplegic shoulder pain reduces quality of life after acute stroke: a prospective population-based study. *American Journal of Physical Medicine and Rehabilitation* 2016 [IF 2.159; SJR 0.701; Q2 Rehabilitation; citations 23]
7. **Adey-Wakeling Z**, Crotty M, Liu E, Shanahan M. Suprascapular Nerve Block for Hemiplegic Shoulder Pain Post Stroke: Subgroup Analysis of Pain Response. *Jacobs Journal of Physical Medicine Rehabilitation* 2015;1(2):009
8. **Adey-Wakeling Z**, Arima H, Crotty M, Leyden J, Kleinig T, Anderson C, Newbury J. Incidence and Associations of Hemiplegic Shoulder Pain After Stroke: A prospective population based study. *Archives of Physical Medicine and Rehabilitation* 2015; 96: 241-7 [IF 3.966; SJR 1.305; Q1 Rehabilitation; citations 46]
9. **Adey-Wakeling Z**, Crotty M, Shanahan EM. Suprascapular Nerve Block For Shoulder Pain In the First Year After Stroke: A Randomised Controlled Trial. *Stroke*. 2013;44: 3136-3141 [IF 7.914; SJR 3.397; Q1 Medicine; citations 27]
 - Cited in *2017 National Stroke Guidelines, Australia*
 - Cited in *2016 Stroke Rehabilitation Guidelines, United States of America*
 - Cited in *2016 Evidence Based Review of Stroke Rehabilitation (EBRSR), Canada*
10. **Allen ZA**, Shanahan EM, Crotty M. Study Protocol: Does Suprascapular Nerve block Reduce Shoulder Pain Following Stroke: A double-blind randomised controlled trial with masked

outcome assessment. *BMC Neurology* 2010; 10:83 [IF 2.474; SJR 08.59; Q2 Medicine; citations 26]

11. **Allen ZA**, Halbert J, Huang L. Driving assessment and rehabilitation after stroke [Letter]. *Med J Aust* 2007; 187(10):599. [IF 7.738; Q2 Medicine; citations 12]

Review Articles and Reports:

1. Laver KE, **Adey-Wakeling Z**, Crotty M, Lannin NA, George S, Sherrington C. Telerehabilitation services for stroke. *Cochrane Database of Systematic Reviews* 2020, Issue 1. Art. No.: CD010255. DOI: 10.1002/14651858.CD010255.pub3 [IF 9.266; SJR 1.319; Q1 Medicine; citations 45]
2. **Adey-Wakeling Z**, Crotty M. Upper Limb rehabilitation following stroke: current evidence and future perspectives. *Aging Health* 2013; 9(6):629-648 [Q3 Medicine; citations 8]
3. George S, Barr C, **Adey-Wakeling Z**, Crotty M, Franchi C, Laver K. What is the most effective type of driver rehabilitation for individuals with acquired brain injury? A comparison of driving instructor lessons and driving simulator interventions. Final report for the Lifetime Support Authority, 2019. Adelaide: Flinders University.
4. George S, Liddle J, Barr C, Crotty M, Nussio A, Neeson S, Jarvis N, Berndt A, **Adey-Wakeling Z**. Supporting people with complex trauma injuries and their families to maximise participation through community mobility. Final report for the Lifetime Support Authority, 2017. Adelaide: Flinders University.
5. **Adey-Wakeling Z**, Baggio L, Cameron I, Janer C, Johns A. AFRM Position Statement: Equity of Access to Driving Assessment for People with Disabilities. *Located online at:* <https://www.racp.edu.au/docs/default-source/advocacy-library/equity-of-access-to-driving-assessment-for-people-with-disabilities.pdf>; Endorsed 30 October 2014.

Book Chapters:

1. Stolwyk R, Ross P, Gooden J, **Adey-Wakeling Z**, Ponsford J. Chapter: Driving Assessment and Rehabilitation after Traumatic Brain Injury. *Brain Injury Medicine, Third Edition*. Zaslav

Invited Presentations (Oral)

Adey-Wakeling Z. Driving after neurological injury. *Neurological Surgeons Society of India (NSS) Virtual Annual Conference*, March 4-5 2022, India

Adey-Wakeling Z, Baldock M, Spargo S. Driving in the Elderly. *Australian and New Zealand Society for Geriatric Medicine State Meeting*, Hahndorf, South Australia 23-24 October 2021

Adey-Wakeling Z. Visual Disorders and Driving – Medicolegal and Clinical Considerations, Invited Workshop, *Rehabilitation Medicine Society of Australia and New Zealand, Snapshots Conference*; held 31 July-1 August 2021

Adey-Wakeling Z, TeleSimulation. Invited plenary presentation, *Rehabilitation Medicine Society of Australia and New Zealand*, held from 21-23 October 2019, Adelaide, Australia

Adey-Wakeling Z, Driving Considerations in the Older Person. Invited presenter, *Australian and New Zealand Society for Geriatric Medicine conference*, Adelaide 13-15 May 2019

Adey-Wakeling Z, Telehealth: Implementation and Sustainability. Invited presenter, NHMRC Centre for Research Excellence Forum on Telerehabilitation, Newcastle 7 August 2019

Adey-Wakeling Z, Telerehabilitation: Models of Care. Invited presenter, *Australasian Faculty of Rehabilitation Medicine Annual Training Conference*, Sydney 16 March 2019

Adey-Wakeling Z, Graham S, Baguley I. Invited presenter, Journeys into Clinical Research. *Rehabilitation Medicine Society of Australia and New Zealand*, held from 17-20 September 2017, Canberra, Australia

Adey-Wakeling Z et al. Isolated And Bored: An Observational Audit Of Patient Activity, Participation And Goal-Awareness In Inpatient ABI Rehabilitation. *Rehabilitation Medicine Society of Australia and New Zealand*, held from 16-19 October 2016, Melbourne, Australia

Adey-Wakeling Z et al. Hemiplegic Shoulder Pain Impacts Quality of Life Following Stroke. *SAHMRI Stroke Symposium*, SAHMRI, Adelaide, 4 November 2015

Grand Round and Hospital Presentations:

Grand Rounds

12 August 2021: *Medicolegal Aspects of Driving with Visual Deficits*
Co-presented with Neil Murray, Neuro-optometrist

30 May 2019: *Driving Assessment – Legislation, Mandatory Reporting, Assessment Approach and Considerations in an Ageing Population*

9 Sept 2016: *Driving and Community Mobility;*
Co-presented with A/Prof Stacey George and Mrs Amy Nussio

Hospital Inservices:

- Biannual Inservice to Acute Stroke Ward: Driving after Stroke 2015-2020
- Emergency Department Consultant Inservice: Medicolegal Aspects of Driving 2019
- Emergency Department Training Medical Officer Inservice: Medicolegal Aspects of Driving 2019
- Divisional Quality Presentation Annually
- Divisional Journal Club Presentation Annually

Conference presentations (Oral)

Mohd Yunos N, Hakendorf P, and **Adey-Wakeling, Z.** Agreement on fitness to drive outcome between Rehabilitation Medicine Physician prediction and Occupational Therapy on-road assessment. *Australasian Road Safety Conference, 28-30 September 2021 in Melbourne, Australia.* Presented by Dr Mohd Yunos.

Adey-Wakeling, Z. et al. Incidence and Associations of Hemiplegic Shoulder Pain Post Stroke: A prospective population based study. *Australasian Faculty of Rehabilitation Medicine Annual Scientific Meeting, held from 9-12 September 2014 in Adelaide, Australia*

Adey-Wakeling, Z. and Bouchier, D. Telerehabilitation: Outpatient clinics for rural stroke review and driving assessment. *Australasian Faculty of Rehabilitation Medicine Annual Scientific Meeting, held from 9-12 September 2014 in Adelaide, Australia*

Adey-Wakeling. Plenary Session entitled Driving After Stroke – Clinical implications and assessment of fitness to drive. *Australasian Faculty of Rehabilitation Medicine Annual Scientific Meeting, held from 17-20 September 2013 in Sydney, Australia*

Adey-Wakeling Z, Crotty M, Shanahan EM. Suprascapular nerve block for shoulder pain in the first year after stroke. *Australasian Faculty of Rehabilitation Medicine Annual Scientific Meeting, held from 17-20 September 2013 in Sydney, Australia*

Adey-Wakeling Z, Crotty M, Shanahan EM. Suprascapular nerve block for shoulder pain in the first year after stroke. *24th Annual Scientific Meeting of Stroke Society of Australia, held from 31 July-2 August 2013 in Darwin, Australia*

Anastassiadis P, **Allen Z,** Geddes A, McQueen H, Hume V. Leading Mt Gambier Rehab Service Development & Models; Actual and Virtual Visits Success, Weakness, Opportunities. *Australasian Faculty of Rehabilitation Medicine Annual Scientific Meeting, held September 2011 in Brisbane, QLD*

Allen Z, Anastassiadis P, Morris C, Prendergast J. Early Rehabilitation at Flinders Medical Centre. *Australasian Faculty of Rehabilitation Medicine Annual Scientific Meeting, held September 2011 in Brisbane, QLD*

Allen Z. Pathophysiology of Incontinence following Stroke. *Stroke Society of Australasia, held September 2011 in Adelaide, SA*

Conference Presentations (Poster)

Adey-Wakeling Z, Dyer S, Crotty M. Telehealth Driving Clinic: Using technology to improve consumer access to timely specialist assessment in a resource-challenged Australian setting. ISQua's 37th International Conference, July 2021, Florence, Italy (meeting adapted to virtual format in context of COVID-19)

Bierer P, Dyer S, Liu E, Voss D, **Adey-Wakeling Z.** Halving Falls Rate in a High Risk Inpatient Cohort. International Forum on Quality and Safety in Healthcare, 2-6 November 2020, virtual from Copenhagen, Denmark

Bierer P, Martin A, Izzo J, Langduo C, Lees T, Spargo N, Voss D, Wakenham N, Edwards D, Dyer S, Liu E, **Adey-Wakeling, Z** . PROFITS Programme: Halving Falls Rates in a High Risk Cohort. *Rehabilitation Medicine Society of Australia and New Zealand*, held from 20-23 October 2019, Adelaide, Australia

Adey-Wakeling Z, Leahy A and Prendergast J. Practical Learnings and Activity Impact of a Large Scale Service Move. *6th Asia-Oceanian Conference of Physical & Rehabilitation Medicine combined with the Rehabilitation Medicine Society of Australia and New Zealand*, held from 21-24 November 2018, Auckland, New Zealand

Adey-Wakeling Z, Rooney K. Consumer-focused quality improvement: Communication Strategies in rehabilitation family meetings. *Rehabilitation Medicine Society of Australia and New Zealand*, held from 17-20 September 2017, Canberra, Australia

Adey-Wakeling Z, Thackray N and Crotty M. Medical Driving Assessment Via Telehealth: A Protocolised Approach and Retrospective Audit of Clinic and Patient-Centred Outcomes. *Rehabilitation Medicine Society of Australia and New Zealand*, held from 16-19 October 2016, Melbourne, Australia

Stratford J, **Adey-Wakeling Z**. Driving After Stroke- the Impact of a Driving Fitness Assessment Clinic. *Rehabilitation Medicine Society of Australia and New Zealand*, held from 16-19 October 2016, Melbourne, Australia

Adey-Wakeling Z, Arima H, Crotty M and the SEARCH Investigators. Prevalence, Correlations and Prediction of Hemiplegic Shoulder Pain: A Prospective Population Based Study in South Australia. *International Stroke Conference*, held from 6-8 February 2013 in Hawaii, USA

Adey-Wakeling Z, Arima H, Crotty M and the SEARCH Investigators. Prevalence, Correlations and Prediction of Hemiplegic Shoulder Pain: A Prospective Population Based Study in South Australia. *Rehabilitation Research Forum*, held March 2013 in Adelaide, South Australia

Adey-Wakeling Z, Crotty C, **Shanahan EM**. Suprascapular nerve block for shoulder pain in the first year after stroke: a randomised controlled trial ACR, San Diego, Oct 2013

Professional Development

Associate Fellow Royal Australian College of Medical Administrators:

- Completed 2019
- Workshop 1: Medical Leadership and Clinical Governance in Context
- Workshop 2: Workforce Management and Engagement
- Workshop 3: Strategy, Change and Financial Management

Company Directors Course: Australian Institute of Company Directors

- 20-26 Nov 2019

Investigator and Site Personnel Good Clinical Practice (ICH GCP) Certificate

- 23 July 2021

International Courses:

- Understanding and Treating Long COVID; Imperial College Academic Health Science Centre (AHSC), Virtual Conference, 17 November 2021
- Principles of Medical Education: Maximising Your Teaching Skills; Harvard Medical School, Virtual Conference, 24-26 March 2021
- The International Leadership Development Program for Physicians; Harvard: TH Chan School of Public Health, Boston USA 15-26 Jun 2015

Australian Courses and Workshops:

- Performance Development; Feedback Essentials
 - Flinders University, March 2022
- Australian Lung Foundation, Pulmonary Rehabilitation Course
 - October 2021
- Prioritising Women's Health and Careers in COVID Recovery and Beyond
 - Launch of Advancing Women in Healthcare Leadership (AWHL) and Women's Health Research Translation and Impact Network (WHRTN)
 - 14 October 2021
- Conducting Assessment in a changing environment; Australian Medical Council, 2021
 - Current State of Assessment; 30 March 2021
 - A Case for Change; 20 April 2021
 - A Path to Change; 18 May 2021
 - Next Steps – Where to From Here; 8 June 2021
- HDR Supervisor Development; Core Workshop 1 & 2, 1 Oct 2020
- Strategic Planning Workshop, RMSANZ Board, 19 Oct 2019
- Asking the Question Training, 12 Nov 2019
- Open Disclosure Expert Training; Adelaide Australia 12 Oct 2017
- Royal Australasian College of Medical Administrators (RACMA) Management for Clinicians in Sub Acute Care; Sydney Australia 9-10 Apr 2016
- AFRM Examiner Training Workshop; Adelaide 6 Jun 2015
- SPSS Introductory Statistics Course, Flinders University 2012
- SPSS Intermediate Statistics Course, Flinders University 2012
- Australasian Faculty of Rehabilitation Medicine Advocacy Workshop Nov 2010
- Australian Institute of Ultrasound: Practical Musculoskeletal and Neurological Workshop, 12-16 Oct 2009
- Registrars in Leadership Course May 2010
- Lower Limb Prosthetics Course, Melbourne 2008
- Spasticity and Botulinum Toxin Course, Melbourne 2008
- AMA Leadership Course 2006

Certificates and Accreditation:

- Supervision of International Medical Graduate Training, AHPRA May 2016
- Crucial Conversations Certification; SALHN Oct 2015
- RACP Supervisor Professional Development Program Accreditation 2018, 2017, 2014, 2012

- AFRM Long Case Assessor Calibration Accreditation 2018, 2017, 2011
- BLS Certification 2018, 2016, 2015, 2013
- AFRM Advanced Portal Education 2012
- MiniCEX accredited 2009

Memberships:

- Royal Australasian College of Physicians (RACP) 2011-current
- Royal Australasian College of Medical Administrators (RACMA) 2019-current
- Rehabilitation Medicine Society Australia and New Zealand (RMSANZ) 2015-current
- International Society of Physical Medicine and Rehabilitation (ISPRM) 2019-current
- Australian Institute of Company Directors (AAICD) 2019-current
- South Australia Salaried Medical Officers Association (SASMOA)
- Australian Medical Association, SA (AMASA)
- Diversity Council Australia 2021-current
- NEJM Catalyst Insights Council 2021-current

Other Activities

- Custodian; Kym Adey Catherine House University of South Australia Scholarship, 2015-
- Volunteer; Catherine House
- Selection Panel Member; James and Jessie Brown Memorial Prizes in Gerontology, 2015
- Golden Key Alumni University of South Australia
- Hahndorf Community Association
- Paragliding Training 2011

Referees

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