Queensland Clinical Networks

Rehabilitation

# Guideline statement for considering impact on rehabilitation services in response to COVID-19

## Purpose statement

The purpose of this document is to highlight impacts COVID-19 may have on people:

1. accessing timely rehabilitation assessment and treatment during the pandemic, and
2. accessing rehabilitation services post COVID-19 infection, including longer-term post-COVID-19 condition management.

Issues, learnings and potential solutions have been identified locally, interstate and internationally to inform planning at a Hospital and Health Service (HHS) and facility level to ensure continuity of rehabilitation services in Queensland.

## Rehabilitation

Rehabilitation aims to reduce continuing disability that has arisen from illness or injury. Contemporary evidence-based rehabilitation is characterised by providing a range of interventions by skilled clinicians working in a biopsychosocial, multidisciplinary team approach. Rehabilitation is essential to the health system, facilitating patient flow, preventing admissions to hospital and bridging the gap between health and social care in the community. The values that underpin Rehabilitation provision, as set out in the accompanying Rehabilitation Principles Statement (Appendix 1), have informed the development of this guideline statement.

## Rehabilitation priorities

The priorities relating to rehabilitation service delivery during the COVID-19 pandemic include:

1. Rehabilitation services remain a priority during the COVID-19 pandemic as patients need to have timely access to these services for them to be most effective.
2. Planning and advocacy are required to ensure rehabilitation services are maintained during the COVID-19 pandemic, as well as the inclusion of rehabilitation in the relevant response planning group.
3. There are many sequelae post-COVID that will require rehabilitation:
   - Understanding the sequelae and specific patient cohorts is vital to planning rehabilitation services. Patients with COVID-19 may have immediate and longer-term rehabilitation needs. This includes those with pre-existing conditions and disability with additional rehabilitation needs beyond reconditioning.
   - Post COVID-19 condition is a recognised sequelae of COVID-19 infection which requires specific attention.

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## Rehabilitation priorities (continued)

4. Workforce considerations:
   - Redistribution of the skilled rehabilitation workforce from inpatient and community-based rehabilitation services to acute areas, in addition to general pandemic-related staffing shortages, will significantly impact the access to, provision of, and patient outcomes of rehabilitation care.
   - Consideration needs to be given to the maintenance of this workforce within HHS capabilities and utilisation of partnership options with private alternatives.
5. Infrastructure and equipment procurement considerations:
   - Advocacy and planning are required to ensure adequate access to and distribution of telehealth equipment, specialised assistive technology equipment and therapy spaces, and staff upskilling to support all areas of need throughout the state. This includes utilisation of pre-existing resources within statewide programs or funding structures that can be appropriately expanded for use in the rehabilitation and disability population.

# Issues

## 1. Maintaining timely access to quality rehabilitation

Delays to admission to rehabilitation services and reduced service capacity will lead to increased system pressures related to patient flow, length of stay and readmission rate, and result in poorer patient outcomes with worsening morbidity, care burden and quality of life.

### Advice

- Assessment and referral for rehabilitation services should continue as an important part of health care, with prompt admission to rehabilitation once patients are ready for rehabilitation.
- Utilisation of modified and innovative models of care should be incorporated into rehabilitation service provision planning at HHS level to optimise patient flow and capacity for continued inpatient and community-based rehabilitation.
- Advocacy and support to ensure community-based rehabilitation care providers can continue to provide care throughout surge periods. This may include staff allocation and prioritisation, equipment and Personal Protective Equipment (PPE) provision, and linkages with alternate providers through public-private agreements.
- Undertaking planning and advocacy at a local level to enable ongoing therapy provision whilst meeting social distancing restrictions in inpatient and centre-based settings (e.g. rehabilitation gyms).
- When identifying priority patient groups for alternate care pathways, consideration should be given to the potential high risk of exposure to COVID-19 for patients awaiting rehabilitation due to extended stay in acute settings.
- Early planning to manage the impact of paused ambulatory care and elective surgery on patients' rehabilitation needs as these services recommence.
- Identification and data collection of patients who are discharged prior to the commencement or completion of their required rehabilitation, with strategies developed to recommence their programs when service capacity permits.

- Provision of consumer and primary care provider information regarding service disruption, use of alternative care pathways and reassurance around restoration of services as able is required to support pathway development and community awareness.
- Planning for the tiered restoration of disrupted services and additional staff allocation to targeted areas based on patient and system needs.
- Communication to establish and maintain trust in the safety of health service provision for all patients, but particularly from the perspective of people with continuing disability from illness or injury.
- Ongoing advocacy for visitor access for formal and informal carer support during inpatient rehabilitation admissions in all pandemic response tiers. Carer support is critical to ensure patients are willing to access rehabilitation, optimise psychological and cultural safety throughout admission, and enable effective discharge planning (reducing length of stay and readmission risk).

### Actions

- Established contemporary models of care, including in-reach rehabilitation, should be assessed locally for applicability during the COVID-19 pandemic, particularly during periods with reduced bed or staffing capacity. Consider accessing advice lines or virtual support options if in-reach teams are unavailable, or staff are required to work from home.
- Ensure rehabilitation services are responsive to clinical demand. Health services should assess and stratify risk within their tiered health system response. Local meetings with appropriate stakeholders are required to facilitate the following:
    - optimal utilisation of all available rehabilitation beds.
    - increased capacity in community settings for outpatient rehabilitation options.
    - utilisation of expanded Hospital in the Home (HITH) Services.
    - workforce capacity optimisation including backfill in sub-specialist rehabilitation services from within the rehabilitation clinician staff group.
    - tiered restoration of disrupted rehabilitation services within the wider HHS response plans.
- Current COVID-19 infectious status should be communicated as a priority if known or if displaying symptoms, as per local hospital policy at time of transfer to rehabilitation.
- Create patient transfer pathways into private rehabilitation settings for both inpatients and outpatients.
- Rapid upscaling of telehealth to support provision of rehabilitation with the understanding that it cannot replace all rehabilitation care.
- Adequate allocation of PPE to facilitate required face to face care in community and inpatient settings.
- Rapid access to telehealth and interpreter services to facilitate family interactions if COVID visitor restrictions are in place.
- Ensure adequate access to technology and interpreter services across all rehabilitation settings, i.e. inpatient, outpatient, transition, and community.

# Issues

## 2. Planning for rehabilitation post COVID-19 infection

Rehabilitation for COVID-19 patients is multifaceted. Understanding the sequelae and patient recovery profiles is vital to planning. Based on current evidence regarding recovery patterns,

timeframes and management requirements, three separate cohorts need to be considered when planning for rehabilitation post COVID-19:

a) COVID-19 patients with immediate complications and acute recovery needs – those with moderate to severe disease with deconditioning, respiratory, cardiac and cognitive complications; Intensive Care Unit (ICU) related complications including deconditioning, peripheral neuropathy and/or myelopathy, and Post Intensive Care Syndrome (PICS).

b) People with pre-existing disability and/or chronic conditions recovering from COVID-19 may have greater rehabilitation needs beyond addressing deconditioning.

c) People recovering post-COVID-19 including those with persistent symptoms related to COVID-19 that are impacting on everyday function. For those with symptoms persisting beyond 12 weeks, this is known as post COVID-19 condition.

## Defining post COVID-19 condition:

The World Health Organisation released a case definition of post COVID-19 condition in October 2021 as follows:

> "Post COVID-19 condition occurs in individuals with **a history of probable or confirmed SARS-CoV-2 infection**, usually **3 months from the onset of COVID-19 with symptoms that last for at least 2 months and cannot be explained by an alternative diagnosis**. Common symptoms include **fatigue, shortness of breath, cognitive dysfunction** but also others which generally have an **impact on everyday functioning**. Symptoms may be **new onset,** following initial recovery from an acute COVID-19 episode, or **persist** from the initial illness. Symptoms may also **fluctuate** or **relapse** over time." This definition may change as new evidence emerges and our understanding continues to evolve.

Prevalence of post COVID-19 condition varies based on the dominant variant at time of infection and various population characteristics (eg. vaccination level of population, exposure to different variants, hospitalised vs non-hospitalised patients). In the Australian context, prevalence is likely to be different to overseas reports, particularly from earlier in the pandemic, given Australia's high vaccination rates upon exposure to the milder Omicron variant. Some estimates have suggested the range may be between 0.09 per cent and 10 per cent (Szanyi et al., 2023, AIHW, 2022). Others have shown the rate of post-viral impact is the same as those following other viruses like influenza (Brown et al., 2023). Severity of initial illness has been shown to be a predictor of risk, though increased occurrence has been observed in women, middle age, and in those with five or more symptoms in the first week of illness (AIHW, 2022). Children are at lower risk than adults.

There is clear evidence internationally that rehabilitation interventions will be required for survivors of critical illness associated with COVID-19 in order to enable a functional return to home (Thomas et al., 2022). Several international agencies have released guidelines for recovery at all levels of infection severity, including exercise prescription, graded rehabilitation programs, and resource requirements to meet patient needs. It is recognised that as we learn more about Australia-specific post-COVID-19 condition, different types of health care may be required for people with post-COVID-19 condition, depending on their symptoms and circumstances. New South Wales (NSW) Health and the Agency for Clinical Innovation (ACI) Rehabilitation Community of Practice (CoP) have produced several guidelines as has the Royal Australasian College of General Practitioners however, there are currently no national consensus

guidelines for rehabilitation care. The recent parliamentary inquiry into long COVID and repeated COVID infections has noted that long COVID is a significant problem and notes that during the inquiry, they were hampered by a lack of specific data and the lack of a concise definition of what constitutes long COVID.

## Advice

- Based on current international and national evidence, the majority of Omicron Variant COVID-19 illness recovery can be appropriately managed in the community through Primary Health Care providers, with support from private and public rehabilitation providers and specialist multidisciplinary rehabilitation services as required.
- The public healthcare system has a vital role to play in raising awareness of recovery and rehabilitation care needs, education to consumers and clinicians regarding COVID-19 illness recovery, dissemination of information and guidance regarding rehabilitation options and suitability of program dependent on individual consumer needs and provider capacity at a local level.
    - The Qld Rehabilitation Clinical Network have developed a Post-viral illness recovery (including COVID-19) – community-based clinical decision tool for primary healthcare which was developed in collaboration with relevant stakeholders https://www.health.qld.gov.au/__data/assets/pdf_file/0012/1321311/Post-viral-illness-COVID-19-recovery-comm-based-decision-tool.pdf
    - Consistent approaches to rehabilitation care with information and guideline dissemination is required to support Queensland rehabilitation providers working with recovering COVID-19 patients.
- Consumer engagement in the development and review of Queensland guidelines is crucial to ensure options are practical and realistic for those requiring additional social or carer supports to undertake rehabilitation programs in the community.
- Data collection and tracking of individual patient rehabilitation requirements and unmet need, including missed rehabilitation due to service restrictions, is required to inform ongoing strategic planning for restoration and expansion of rehabilitation to meet needs of consumers.
- Identification and establishment of pathways, including clear referral processes, is required to link recovering patients with ongoing rehabilitation needs into appropriate services in order to reduce the risk of preventable long-term poor health outcomes and higher levels of disability.
- Information dissemination and provision of educational resources to consumers and primary care providers to ensure individuals recovering from COVID-19 with rehabilitation needs are identified and linked into the correct pathway in a timely manner.
- Utilisation of standardised symptom assessment tools and outcome measurement to monitor effectiveness of interventions and redirection into an alternative care provision type within established pathways of care as required.
- Planning for subacute capacity for post-acute COVID-19. In addition to increasing emergency and ICU capacity, early planning for the subacute needs of people who survive COVID-19 is needed. This may include surge-related sub-acute COVID-19 wards and a specific in-reach team for efficient PPE utilisation and risk management purposes.
- Each site to follow local protocols for bed allocation for potential versus confirmed COVID-19 cases. As much as possible, the aim is to minimise the interruption to rehabilitation care and to maintain care in units staffed by specialised medical, nursing and allied health rehabilitation professionals.

- Additional staffing and resourcing will be required in community-based services to manage those with ongoing rehabilitation needs following discharge from virtual COVID wards or Primary Health Care pathways.

## Actions

- Review and optimisation at HHS and state level of established alternate locations to cohort subacute patients recovering from COVID-19, including designated wards, medi-hotels, private hospitals, or other community locations where services can be delivered by multidisciplinary teams.
- Patients receiving acute inpatient care with COVID-19 should be assessed for ongoing functional deficits and referred for appropriate rehabilitation (inpatient or community based) prior to discharge home from hospital. If formal rehabilitation is not required, patients should be provided with appropriate education and information booklets to guide self-directed recovery within the community.
- All patients requiring critical care (ICU or High Dependency Unit) for COVID-19 should be assessed by a skilled rehabilitation clinician to determine rehabilitation needs given the high likelihood of sequelae and functional impairment in this cohort.
- If patients are managed in a COVID ward, ensure the COVID ward staff have a key contact to seek advice on rehabilitation care, access to rehabilitation education or have been trained in rehabilitation care.
- Maintenance of multidisciplinary rehabilitation teams expertise in general, cardiorespiratory and specialist rehabilitation to manage people with cardiorespiratory and/or cognitive sequalae and physical deconditioning after COVID-19.
- Queensland Rehabilitation Clinical Network (QRbCN) to review, endorse and/or assist to develop guidelines relating to rehabilitation of patients with COVID-19 in collaboration with the Department, Health Consumers Queensland (HCQ), Queensland Disability Network (QDN) and other relevant stakeholders (Clinical Networks, HHS, Office of the Chief Allied Health Officer (OCAHO) and Allied Health groups and private sector providers).
- Review of public messaging regarding post COVID-19 condition and ongoing recovery needs in collaboration with the relevant Queensland Health COVID-19 response management group, HCQ and QDN.
- Dissemination of resources, guides and consumer information through Networks, Primary Health Networks (PHNs), HHS COVID response teams and HCQ.
- Liaison with GPs regarding condition recognition and management options.
- Region specific development of pathways for GP referral to outpatient and community rehabilitation services for post COVID-19 patients or those with unmet Rehabilitation needs during pandemic service restrictions, dependent on HHS and local private provider capacity.

# Rehabilitation workforce, infrastructure and resource impacts

Maintenance of a skilled rehabilitation workforce will significantly improve patient flow, overall hospital and rehabilitation lengths of stay, patient outcomes and capacity to remain in the community (i.e. reduce likelihood of readmission and further strain on the health system).

- Staffing redeployment planning should consider clinician skillset required in subspecialist rehabilitation services and optimally utilise the broader rehabilitation clinician workforce to cover staff shortages within subacute teams.
- If standard rehabilitation services are no longer viable, utilisation of skilled rehabilitation clinicians to implement modified models of service delivery should be prioritised.

- Allocation of resources and additional staffing to inpatient and community-based rehabilitation services will require increased prioritisation following future surges (dependent on variant severity) to meet the rehabilitation needs for post COVID-19 recovery and recommencement of other health services.
- Consideration to be given to appropriate equipment resourcing throughout surge and reduced transport capacity periods, including:
  - access to telehealth equipment for patients and staff.
  - consideration of a loan pool of specialised assistive technology equipment for complex patient needs across the state.
  - utilisation of Medical Aids Subsidy Scheme (MASS) stock to reduce discharge delays.
  - linkages with other statewide projects/programs with resource surpluses.
  - advocacy from Department of Health (DoH) to aged care and disability services (including National Disability Insurance Scheme – NDIS) to support consumers and the health service.
- Consideration of the skills and training needs for consumers and clinicians to maximise confidence and use of telehealth for rehabilitation.

## Role of the Queensland Rehabilitation Clinical Network

The Queensland Rehabilitation Clinical Network (QRbCN) will add value by providing a unified clinically-informed perspective on the above issues and support clinicians to continue rehabilitation service provision through advocacy, information dissemination, guideline development and pathway recommendations. The QRbCN will engage and collaborate with other Clinical Networks, both adult and paediatric and other key stakeholders to achieve these objectives.

## References

Agency for Clinical Innovation, NSW Health, Management of adults with COVID-19 in the post-acute phase: A model of care for NSW Health clinicians: https://aci.health.nsw.gov.au/__data/assets/pdf_file/0008/687446/ACI-COP-Management-of-adults-with-COVID-in-the-post-acute-phase.pdf?v=0.1.0 Accessed online 14 September 2023.

Agency for Clinical Innovation, NSW Health, COVID-19 Response, Communities of Practice: https://aci.health.nsw.gov.au/covid-19/communities-of-practice Accessed online 14 September 2023.

Australian Institute of Health and Welfare. Long COVID in Australia - a review of the literature. 2022. https://www.aihw.gov.au/reports/covid-19/long-covid-in-australia-a-review-of-the-literature/summary (accessed 17 August 2023).

Brown M, Gerrard J, McKinlay L, et al. Ongoing symptoms and functional impairment 12 weeks after testing positive for SARSCoV-2 or influenza in Australia: an observational cohort study. BMJ Public Health 2023;1:e000060. doi:10.1136/ bmjph-2023-000060.

Ministry of Health. 2022. Clinical Rehabilitation Guideline for People with Long COVID (Coronavirus Disease) in Aotearoa New Zealand: Revised December 2022. Wellington: Ministry of Health.

National COVID-19 Clinical Evidence Taskforce: https://clinicalevidence.net.au/ Accessed online 14 September 2023.

Parliament of Australia Sick and tired: Casting a long shadow, Inquiry into Long COVID and Repeated COVID Infections:

https://parlinfo.aph.gov.au/parlInfo/download/committees/reportrep/RB000006/toc_pdf/SickandtiredCastingalongshadow.pdf Accessed online September 2023.

Royal Australasian College of General Practitioners, Caring for patients with post–COVID-19 conditions, https://www.racgp.org.au/clinical-resources/covid-19-resources/clinical-care/caring-for-patients-with-post-covid-19-conditions/introduction. Accessed online September 2023.

Sudre CH, Murray B, Varsavsky T, et al. Attributes and predictors of long COVID. Nature Medicine 2021 27:626-631.

Szanyi J, Wilson T, Howe S, et al. Epidemiologic and economic modelling of optimal COVID-19 policy: public health and social measures, masks and vaccines in Victoria, Australia. *Lancet Reg Health West Pac* 2023; **32**: 100675.

Thomas P, Baldwin C, Beach L, et al. Physiotherapy management for COVID-19 in the acute hospital setting and beyond: an update to clinical practice recommendations, Journal of Physiotherapy, 68 (2022) 8-25.

United Kingdom Government, Office for National Statistics, Prevalence of ongoing symptoms following coronavirus (COVID-19) infection in the UK. Accessed online September 2023.

World Health Organisation, A clinical case definition of Post COVID-19 condition by a Delphi consensus, 6 October 2021: https://www.who.int/publications/i/item/WHO-2019-nCoV-Post_COVID-19_condition-Clinical_case_definition-2021.1 Accessed online 14 September 2023.

World Health Organisation, Support for rehabilitation: self-management after COVID-19-related illness (2nd edition): Support for Rehabilitation: Self-Management after COVID-19 Related Illness (who.int). Accessed online 14 September 2023.

World Health Organisation, Clinical management of COVID-19: living guideline: https://app.magicapp.org/#/guideline/j1WBYn/rec/jmYN3l. Accessed online September 2023.

## Version control

| Version | Date | Author | Changes | Proposed review date |
|---|---|---|---|---|
| 1.0 | January 2022 | Co-chairs, QRbCN | First draft | |
| 1.1 | January to February 2022 | Steering Committee, QRbCN<br><br>Meeting with COVID-19 Health System Response Lead<br><br>Queensland Clinical Networks' Executive | Edits from first draft | |
| 1.2 | March 2022 | Co-Chairs, QRbCN | Edits | |
| 1.3 | March 2022 | Co-Chairs, QRbCN | Edits, additional references. | 30 September 2022 |
| 2.0 | July to February 2024 | Review and endorsed by Steering Committee, QRbCN and HIU, CEQ | New template, edits following review, additional references. | March 2026 |

# Appendix 1: Rehabilitation Principles Statement

Rehabilitation aims to reduce continuing disability that has arisen from illness or injury. Contemporary evidenced based rehabilitation is characterised by the provision of a range of interventions by skilled clinicians, working in a biopsychosocial, multidisciplinary team approach. Rehabilitation is essential to the health system, facilitating patient flow, preventing admissions to hospital and bridging the gap between health and social care in the community. When considering development and delivery of rehabilitation services the following should be included:

## Rehabilitation is a vital specialty in healthcare

Timely rehabilitation can decrease length of stay and prevent re-hospitalisation. Rehabilitation requires specific environments (particularly within facility-based settings), and a highly skilled workforce.

## Rehabilitation professionals deal with complexity

Rehabilitation professionals effectively manage and integrate complex needs and issues across diverse populations to ensure optimal and sustainable outcomes. They straddle and integrate many systems, including health, welfare, work, family and leisure to ensure meaningful and sustainable outcomes.

## The rehabilitation workforce reflects agility and diversity

Rehabilitation professionals respond to diverse populations with complex needs. They help people rebuild their bodies, their lives and enhance their quality of life. Rehabilitation professionals work in multidisciplinary teams, and often have shared scopes of practice and/or practice within a transdisciplinary model of care.

## Rehabilitation is patient/consumer centred

Rehabilitation professionals are committed to putting patients/consumers first, listening to and supporting them and those close to them.

## Rehabilitation is outcome oriented

While rehabilitation is particularly beneficial in cases where people have some impairment or disability, it is relevant to all people across the lifespan. Rehabilitation uses evidence based and best practice therapies to help people achieve their goals, restore functioning, strengthen their social participation and improve their quality of life.

## Rehabilitation enables people to return to the community

Helping people to function effectively in their environment is vital in rehabilitation. Rehabilitation engages with and draws on the social, work, family, friends, and local community environments and resources.

## Rehabilitation is technology oriented

Rehabilitation professionals ensure that technology is meaningfully integrated into rehabilitation practice through being optimally targeted and available to all. A major focus is ensuring the nature of that technology is suited to, tailored to and accessible to the person's needs and circumstances.

## Proactive and preventive health services have rehabilitation at the core

In times of crisis and increased system burden, rehabilitation should be a priority for facilitating patient discharge and welfare. De-prioritising or limiting rehabilitation services and cutting staff will adversely impact on patients in need of rehabilitation services and lead to re-hospitalisation.

Kuipers P, Foster M. COVID-related responses and impacts on rehabilitation services in Queensland: Phase one overview, Hopkins Centre, November 2020 (Access via QHEPS or on request: QldRehabilitationNetwork@health.qld.gov.au)