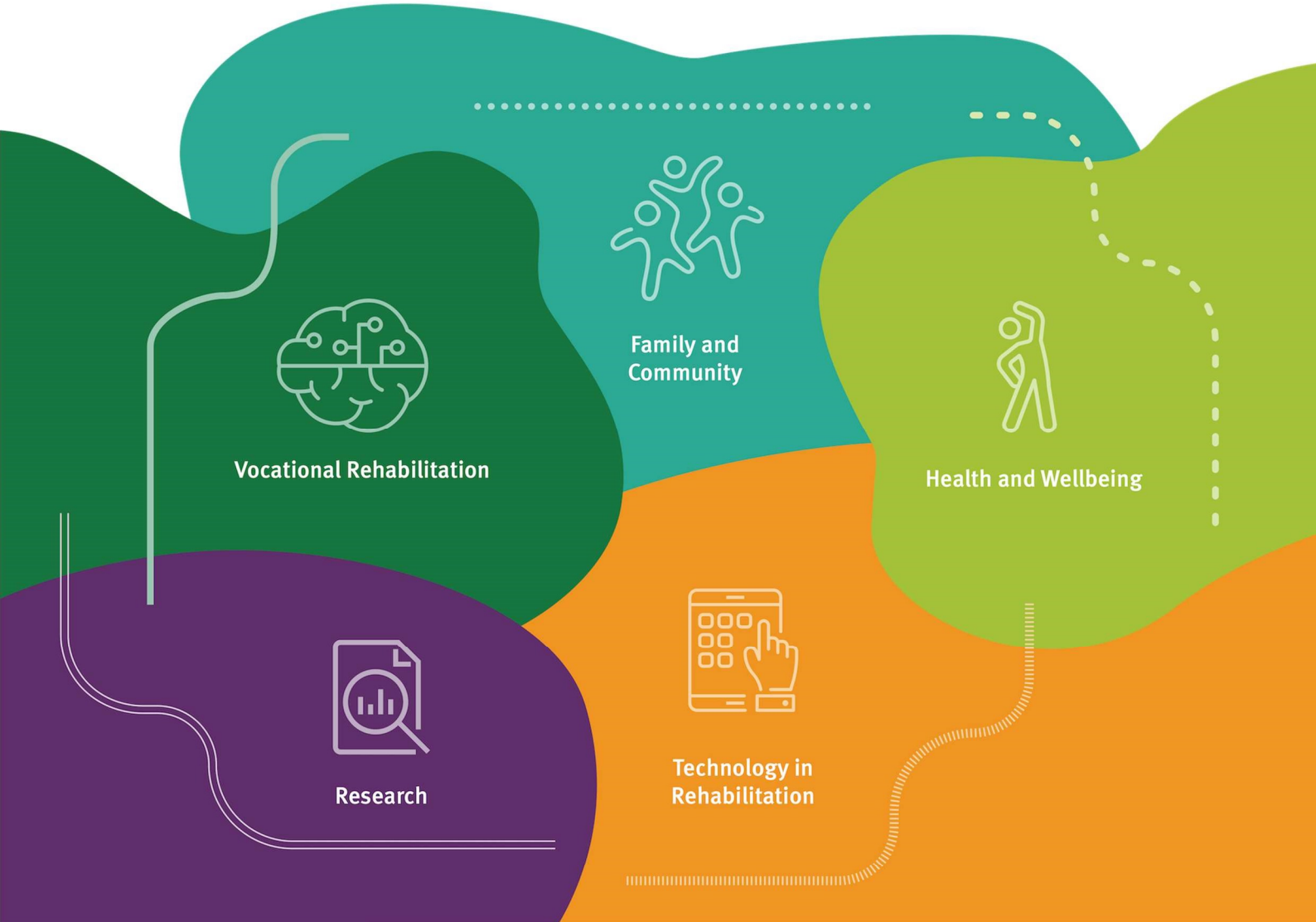
Metro South Health | Division of Rehabilitation – Acquired Brain Injury
Transitional Rehabilitation Service

Acquired Brain Injury Transitional Rehabilitation Service Model of Care

June 2020



MAIC Motor Accident Insurance Commission
Queensland Government

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Commonly Used Abbreviations

ABI	Acquired Brain Injury
ABI TRS	Acquired Brain Injury Transitional Rehabilitation Service
ABIOS	Acquired Brain Injury Outreach Service
BIRS	Brain Injury Rehabilitation Services
BIRU	Brain Injury Rehabilitation Unit
DoR	Division of Rehabilitation
MAIC	Motor Accident Insurance Commission
MOC	Model of Care
MSHHS	Metro South Hospital and Health Service
PAH	Princess Alexandra Hospital
STEPS	Skills to Enable People and Communities Program

Executive Summary

In 2016 the Division of Rehabilitation at the Princess Alexandra Hospital, Metro South Health secured five-year seed funding from the Motor Accident Insurance Commission (MAIC) to develop and evaluate a specialist Acquired Brain Injury Transitional Rehabilitation Service (ABI TRS) for adults with ABI and their families. This pilot project was developed to address the lack of a formal community transitional rehabilitation program in Queensland. The pilot funding expires on 30 June 2021.

The ABI TRS was implemented within the existing statewide Brain Injury Rehabilitation Services (BIRS) continuum operated by the Division of Rehabilitation at the Princess Alexandra Hospital (PAH). BIRS consists of 5 interconnected sub-services that form an integrated care continuum for adults with ABI, involving sub-acute and extended rehabilitation, transition and return to the community, and longer-term community services.

Detailed Service Proposals submitted to MAIC in 2012 and 2015 formed the basis of the proposed Pilot Project and attendant Service Model of Care for ABI TRS. Clinical service delivery commenced in January 2017, providing rehabilitation services previously not available in Queensland- specialist ABI, community rehabilitation for 8-12 weeks immediately post-hospital discharge. Services are offered directly in clients' homes within a defined local catchment area (50km radius from PAH), and in 4 client accommodation properties, which are available for clients who usually reside in regional/rural Queensland. The program aims to improve longer-term community outcomes for people with ABI and their families.

The ABI TRS Model of Care has been informed by local and international research regarding transition from hospital after acquired brain injury, coupled with clinical best practice and feedback of the lived experience of ABI from adults with ABI and their families.

The purpose of this document is to:

- Describe the current model of service delivery and principles underpinning the clinical care provided by ABI TRS
- Define the types of service offered to consumers and stakeholders of ABI TRS
- Articulate the governance, quality and review processes in operation within ABI TRS
- Identify the goals and outcomes of clinical services provided within ABI TRS

It is anticipated that this document will be of interest to health service planners, rehabilitation clinicians, community partners and consumers.

Areti Kennedy
Manager ABI TRS

Professor Tim Geraghty
Medical Chair, Division of Rehabilitation

30 June, 2020

1. Vision, Mission and Objectives

Vision:

To enable people with an acquired brain injury (ABI) and their families to engage in meaningful life roles and maximise independence in their own home and community environments during the transition phase from hospital to home.

Mission:

To provide specialist, contemporary, goal-directed community rehabilitation services to people with ABI and their families during the transition from hospital to home.

Objectives:

The primary objectives of the ABI TRS Pilot Project are:

- To provide intensive interdisciplinary community rehabilitation services for individuals with ABI and their families during the transition from hospital to home.
- To provide a specialist transitional rehabilitation service for people with ABI and their families within the existing Brain Injury Rehabilitation Services (BIRS) continuum at Princess Alexandra Hospital (PAH).
- To seek opportunities to further establish and develop innovative rehabilitation approaches for people with ABI and their families during the transition from hospital to the community.
- To manage, teach and research to enhance service capacity, quality and outcomes.

2. Background

2.1. Service History - Pilot Project

Preparation of a detailed service proposal for the development, implementation and evaluation of a specialist ABI transitional rehabilitation service (ABI TRS) for adults with ABI and their families in Queensland was initiated in 2012, with funding for the five-year pilot project provided in 2016 by the Motor Accident Insurance Commission of Queensland (MAIC). The service proposal included an extensive review of relevant ABI literature, local and national benchmarking with other transition and community rehabilitation services, and extensive stakeholder consultations. In addition, several local research studies had explored the experience of transition from hospital to home for those with ABI and their families, including an Australian Research Council (ARC) Linkage Project 2007–2010. This research endorsed the critical importance of therapeutic support during the transition period from hospital to home, and the need for the development of a targeted transition-specific service. Collation of the information received through these processes informed development of an optimal service model and operational processes for an ABI TRS in Queensland.

Service start-up commenced in July 2016, with a small team comprising Manager, Business Manager, Administration Officer, and Research and Development Officer. Initial activities aligned with those described in the ABI TRS implementation plan, as agreed by signatories to the funding agreement between MAIC and Metro South Hospital and Health Service (MSHHS) (February 2016). This included establishment of agreed Key Performance Indicators for the Pilot Project.

The implementation plan outlined the key strategic outcomes, actions and activities to be undertaken during the establishment phase to operationalise the ABI TRS in preparation for service delivery. Specifically, the implementation plan addressed service governance, workforce development, operational and business establishment and processes, service integration and delivery, research and evaluation, and communication and service promotion. Clinical service delivery commenced in January 2017.

3. ABI Service Development in Queensland

3.1. Statewide Adult Brain Injury Rehabilitation Health Service Plan 2016- 2026

While the development of the above Plan pre-dates the formal existence of the MAIC-funded ABI TRS Pilot Project, one of the articulated outcomes of the plan for the tertiary BIRS, PAH, MSHHS, is that "…two new evidence-based, service components will be integrated into the existing brain injury care continuum" (page 2) for Queensland adults with an acquired brain injury of the highest complexity.

One of these is "a transitional rehabilitation service, providing specialised intensive rehabilitation in a contextually relevant environment (i.e., home or home-like setting) focussing on community integration, enhanced functional outcomes and a return to a meaningful and productive life" (page 2).

Of note, the Plan also identified that "a transitional rehabilitation service may reduce service pressures at the PAH Day Hospital via the provision of community-based therapies. While the exact impacts on Day Hospital service is unknown, it is recommended that this service be reviewed following the operationalisation of the transition service to explore any service duplications and create service efficiencies".

Continuing consultation with the implementation team for the Statewide ABI Plan is occurring, through ABI TRS membership on the ABI Clinical Advisory Network, specific project collaborations (e.g., telehealth in ABI), and leadership of particular Plan action areas, e.g., workforce standards in community ABI rehabilitation in Queensland.

3.2. BIRS Strategic Plan 2019-21

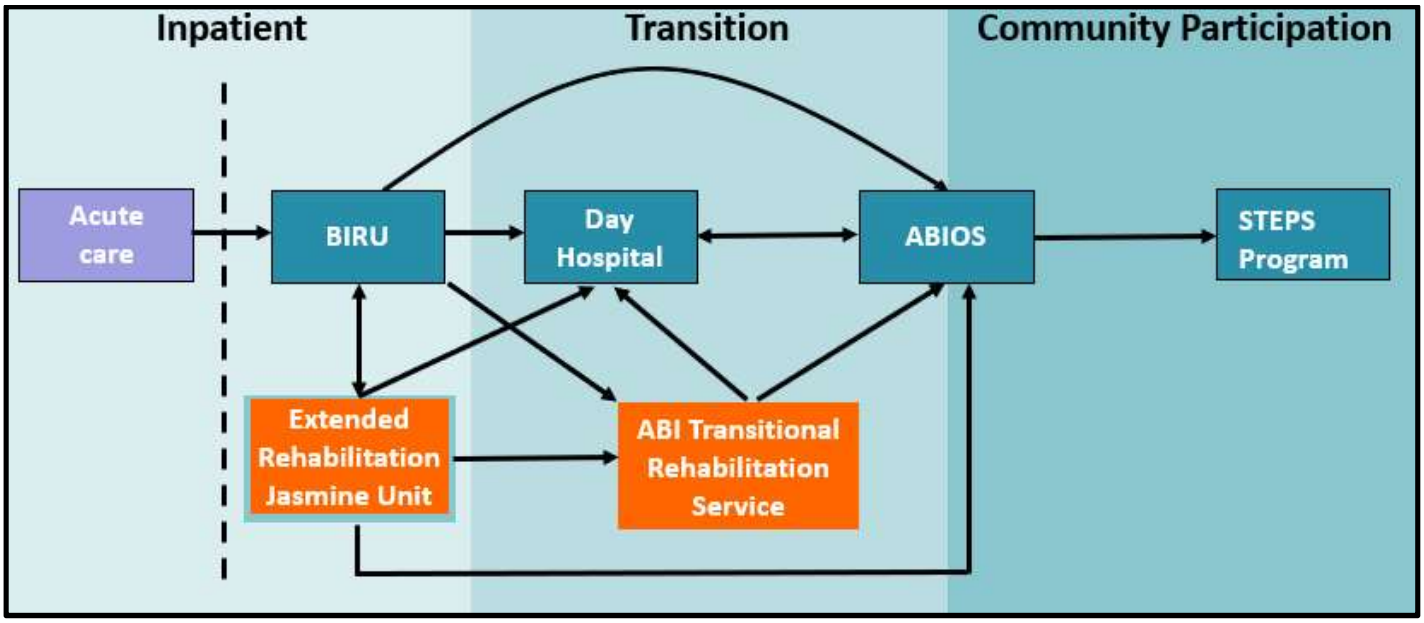
The BIRS Management Committee has endorsed an action "to develop and support business case for continuation of TRS" as a strategic objective for Sustainable Care, within the BIRS Strategic Plan 2019-21.

3.3. Metro South Health Strategic Plan 2019-23

The primary objectives of the ABI TRS Pilot Project listed above align directly with the four objectives of the Metro South HHS Strategic Plan 2019-23: Person-centred Care, Connecting Care, Quality Care, and Sustainable Care. The following description of the ABI TRS Model of Care will demonstrate this synergy.

4. Existing BIRS Continuum

Figure 1. BIRS Continuum of Care



In recognition of the need to offer specialised clinical health services to adults with ABI across the continuum of care, the BIRS provides 5 sub-services that work together to provide flexible and individualised rehabilitation services across an integrated care continuum:

1. **The Brain Injury Rehabilitation Unit (BIRU):** provides intensive inpatient rehabilitation for adults with ABI during the early recovery stages of injury with a focus on regaining independence. The Hypertonicity clinic operates as part of BIRU and is a specialist multidisciplinary clinic that provides goal-based assessment and management of patients with Hypertonicity following a stroke or brain injury.

2. **The Jasmine Inpatient Unit:** provides a role-based inpatient rehabilitation program for adults with severe ABI who may benefit from inpatient rehabilitation over an extended duration of recovery.

3. **The Acquired Brain Injury Transitional Rehabilitation Service (ABI TRS):** provides adults with ABI and their families with a co-ordinated post-discharge, home based clinical pathway and improved access to intensive rehabilitation beyond the hospital setting.

4. **The BIRU Day Hospital:** provides interdisciplinary goal based, out-patient assessment and rehabilitation services to assist people with ABI to maximize their independence.

5. **The Acquired Brain Injury Outreach Service (ABIOS):** is a community-based rehabilitation service that assists individuals and their families to achieve improved quality of life, and access to suitable services. The STEPS (Skills To Enable People and communitieS) program operates as part of ABIOS and provides a Queensland wide information and self-management group program for adults with brain injury, their families, friends and wider support networks.

5. ABI TRS Governance

Several entities provide oversight and governance for the ABI TRS Pilot Project. These include:

5.1. Division of Rehabilitation Executive- Service Level Governance

ABI TRS operates under the Queensland Health Clinical Governance framework which is operationalised at the service level. Quarterly governance meetings are held with Division of Rehabilitation (DoR) Executive to monitor service activities in budget and performance, service operations, health service accreditation, and occupational health and safety.

5.2. ABI TRS Strategic Reference Committee

The ABI TRS Strategic Reference Committee was established for ABI TRS Pilot Project to:

- Provide advice and guidance to ABI TRS in the development of the service implementation plan
- Assist in determining timeframes and priorities to support implementation of key service deliverables
- Manage the service development scope in context of timeframes and resources in relation to emergent issues requiring changes to be considered
- Provide advice on strategic partnerships both internal and external, including membership and terms of reference for key working groups as they arise
- Support the resolution of issues escalated by the ABI TRS staff in relation to hospital/division policy and procedure
- In collaboration with the DoR Executive, provide sign off on communications, plans and other deliverables developed by the ABI TRS
- Provide advice on the development of a project Communication Plan.

Members have expertise in ABI and/or health service management, and include representatives from the external funder MAIC, DoR and PAH Executive, ABI peak body- Headway Gold Coast, a consumer with lived ABI experience, BIRS inpatient service, BIRS community service, transitional spinal cord injury rehabilitation service, and allied health management. Meetings are conducted quarterly and are chaired by the Medical Chair, DoR, PAH.

5.3. ABI TRS Research and Evaluation Reference Committee

The ABI TRS Research and Evaluation Reference Committee was established for ABI TRS Pilot Project to:

- Provide advice and guidance to ABI TRS in the development of service evaluation framework and research plan for the implementation of the ABI TRS.
- Assist in determining timeframes and priorities of key evaluation deliverables.
- Monitor the service evaluation scope in context of timeframes and resources in relation to emergent issues requiring changes to be considered.
- Provide advice on strategic research and evaluation partnerships both internal and external.
- Provide advice and guidance on resolution of issues escalated by the ABI TRS staff in relation to evaluation and research.

Members have expertise in research in ABI and/or health service delivery, and include representatives from the external funder MAIC, DoR and PAH Executive, a consumer with lived ABI experience, BIRS community research, University of Queensland, Griffith University. Meetings are conducted quarterly and are chaired by the DoR Professor of Disability and Rehabilitation as joint The Hopkins Centre/DoR Executive representative.

5.4. BIRS Management Committee

Local oversight for the operation and performance of the BIRS is provided by the BIRS Management Committee. The BIRS Management Committee provides co-ordinated, service-wide leadership and strategic planning on matters relevant to the shared delivery and development of Brain Injury Rehabilitation Services across the continuum of care.

The BIRS Management Committee meets monthly with the following aims:

- To ensure that BIRS services work collaboratively and effectively to provide the highest quality, person centred, clinical services across the care continuum
- To work collaboratively to facilitate the BIRS as a centre of excellence within MSHHS, across the state of Queensland and internationally with a reputation for leadership, innovation, clinical expertise, teaching and training, person centred care and world class interdisciplinary research
- Maintaining a statewide leadership role in service delivery and development for individuals with ABI through participation in strategic planning and policy development, service promotion, consultation, innovation and advocacy, supported by benchmarking, data collection and service evaluation.
- To encourage and support consumer engagement in all levels of service delivery to inform consumer focussed enhancements in clinical service delivery and development.
- To oversee the ongoing progression and implementation of BIRS operational planning in alignment with the values and priorities of the Division of Rehabilitation and Metro South Health Strategic plans.

5.5. Local Service Oversight

ABI TRS hosts weekly Operational and Clinical Meetings with all staff to discuss operational and clinical service delivery and to identify issues for escalation through governance channels where appropriate.

6. ABI TRS Service Description

6.1. Aims of Model of Care

The primary aims of the ABI TRS Pilot Project are:

- Facilitate early community re-integration outcomes (i.e., maximising functional independence in home/community environments, resumption of meaningful life roles, and community reintegration) for adults with ABI and their families during the transition from hospital to home.
- Extend the continuum of specialist ABI rehabilitation services provided by DoR at PAH.
- Improve the continuity between hospital and community-based services.
- Reduce length of stay across the BIRS continuum at PAH by providing a clear referral pathway to the community with the capacity for intensive therapy services.
- Enhance access to community-based rehabilitation for adults with ABI and their families.
- Extend the current literature and inform future ABI service development through the formal research evaluation of the operational implementation of the ABI TRS.

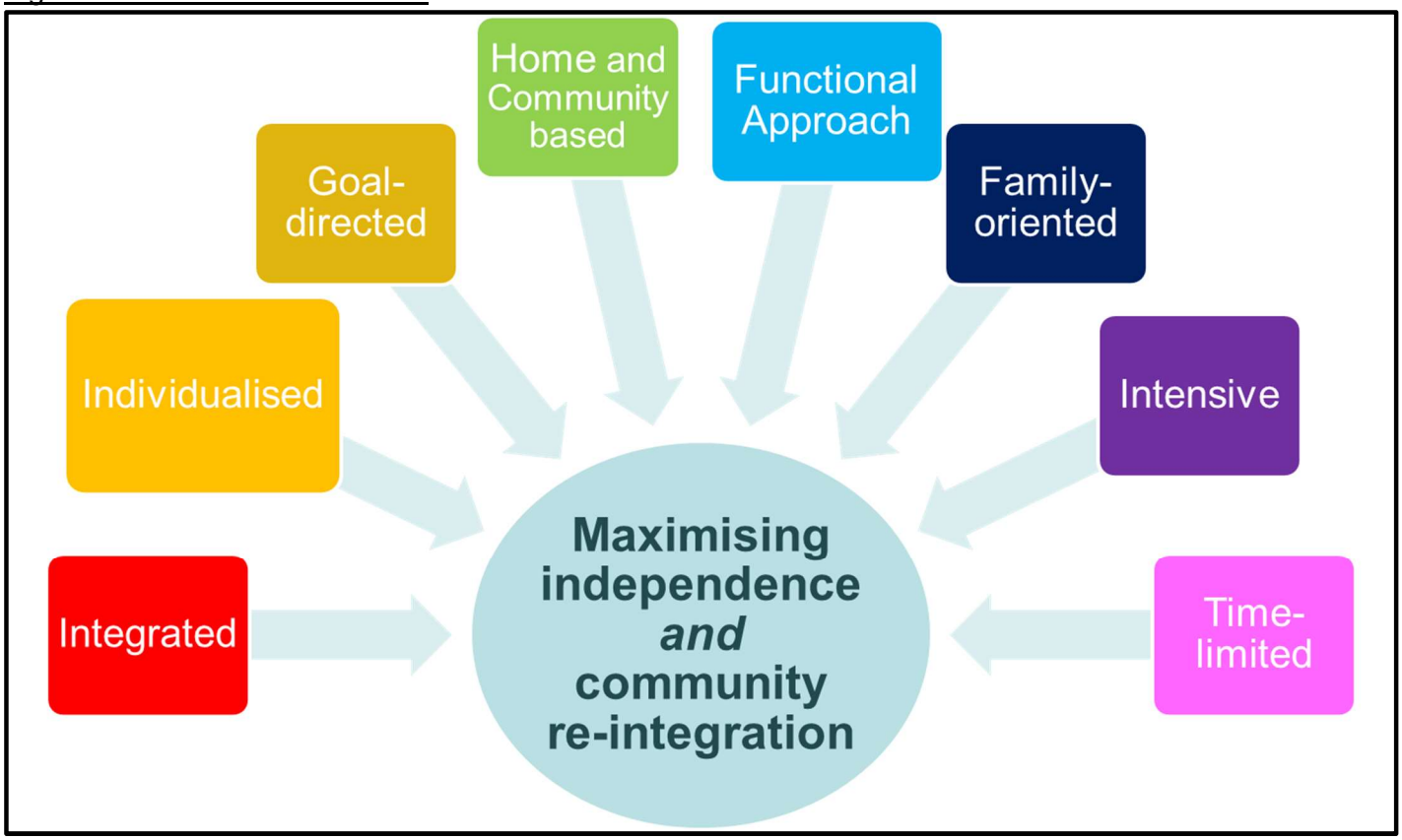
6.2. Core Principles of the ABI TRS Model of Care

The ABI TRS provides a continuity of rehabilitation from the BIRS inpatient rehabilitation units into the community, providing a pathway that allows continued access to intensive and coordinated rehabilitation beyond the inpatient hospital setting. The rehabilitation continuum is highlighted by inpatient discharge planning playing an influential role in the development of individualised outpatient goals, and by ABI TRS commencing goal planning with clients and families prior to their transition home from hospital.

Core principles of ABI TRS include:

- individual rehabilitation plans tailored to the goals, needs, preferences and personal situation of clients and their families/extended support networks.
- time-limited rehabilitation programs, spanning the initial 10-12 week period post- hospital discharge.
- intensive rehabilitation services, i.e., capacity to provide clients with therapy services 3-4 days per week throughout the duration of the program.
- therapy service provision in the home and community environments, along with some centre-based group and individual programs as appropriate. Telehealth is also used as clinically appropriate.
- access to the specialist services of ABI TRS for regional/rural clients (who usually reside out of the service's defined local catchment area) through the provision of suitable client accommodation in Brisbane for the duration of their rehabilitation program. Four client accommodation properties are offered for this purpose, at no-cost to the client or family.
- provision of a range of therapeutic interventions, including individual and group-based therapy.
- a functional approach to therapy provision with an emphasis on resumption of and participation in meaningful life roles and community re-integration, including return to work and/or education.
- use of an interdisciplinary framework for all aspects of rehabilitation program delivery.
- a family-oriented approach to community rehabilitation.
- integration of ABI TRS into the existing BIRS continuum at PAH. This presents significant operational efficiencies and enables key professional linkages to be cultivated across the continuum.

Figure 2. ABI TRS Model of Care



6.3. Admission Criteria

As ABI TRS has been funded to be part of the BIRS continuum, it adheres to the admission criteria for BIRS. Additional admission / eligibility criteria also apply as listed below.

BIRS Eligibility Criteria

New referrals to BIRU are considered based on the following general eligibility criteria:

1. Residents of Queensland aged 16-70 years of age at the time of their injury or individuals who have sustained their injury in Queensland (with inpatient referrals from Northern NSW considered on a case by case basis).
2. Individuals with adult onset ABI who have needs requiring high intensity short stay specialised inpatient rehabilitation with a focus on returning to the community. The individual may present with:
    a. A newly identified impairment /activity limitation due to the ABI, or:
    b. Pre-existing impairment/activity limitation where there has been deterioration
3. Diagnostic Inclusions:
    a. Traumatic Brain Injury (penetrating/ non- penetrating)
    b. Infectious and inflammatory processes e.g., meningitis (infective, viral), encephalopathy
    c. Haemorrhage (Subarachnoid, Subdural, Parenchymal)
    d. Hypoxic brain injury
    e. Neurosurgical / Post-operative complications
4. The individual has specific, achievable and measurable rehabilitation goals, addressing functional, activity or participation limitations or restrictions due to the ABI.
5. The individual can or is likely to be able to participate in the in-patient rehabilitation program being offered.

BIRS Exclusion Criteria

- Individuals with progressive neurological conditions (e.g., multiple sclerosis), degenerative disorders (e.g., dementia, Parkinson's disease), congenital disorders (e.g., birth anoxia)
- Individuals with ischemic stroke of single intracranial vessel territory without secondary haemorrhage
- Individuals with a mental health diagnosis or alcohol or drug dependency as the primary cause of the presenting clinical issues.
- Individuals who present with high risk or dangerous behaviour which may impact on the safety/ or cause significant disruption to the rehabilitation provided by staff for existing ward patients
- Individuals who are not able to participate in rehabilitation.
- Individuals otherwise ineligible to access public health services in Metro South HHS e.g., non-Australian citizens

ABI TRS Eligibility Criteria

Specific clinical eligibility criteria also apply for ABI TRS. Clients must:

- Have identifiable and specific rehabilitation goals
- Be able to engage in, and benefit from community rehabilitation
- Require intensive interdisciplinary rehabilitation from 2 or more disciplines in the immediate post-discharge transitional period (i.e., 8-12 weeks).
- Be medically stable
- Be safe to discharge to the home / community
- Have appropriate assistance and supports identified and in place for discharge from hospital and prior to entry into the ABI TRS program (including supervision needs, carer training, medication management/administration, equipment needs).

ABI TRS is a rehabilitation service and does not provide funding for disability care or support needs at home.

As an integrated BIRS service, ABI TRS prioritises referrals from the Brain Injury Rehabilitation Unit (BIRU) and/or the Jasmine Extended Rehabilitation Unit. However, as service capacity permits, limited referrals will be considered from non-BIRS inpatient rehabilitation units in Queensland.

ABI TRS Exclusion Criteria

Clients will not be accepted to ABI TRS if they meet the following:

- Reside outside of catchment and do not access ABI TRS accommodation options
- Reside on island communities off the Queensland mainland (out of catchment)
- Not require the intensity, interdisciplinary or specialist nature of the program (i.e., able to be managed appropriately by other outpatient or community services)
- Unable to participate in the in-reach component of the rehabilitation program (e.g., due to short admission)
- Significant risks are identified (for clients or staff) for home or centre-based programs that cannot be adequately addressed by risk assessment and management planning.

Access for clients residing out-of-catchment with limited local rehabilitation options may be negotiated on a case-by-case basis.

6.4. Referral Process

As one of the primary aims of the ABI TRS Pilot Project is to improve continuity between hospital and community-based services, collaboration and integration of processes with the discharging inpatient rehabilitation units, as detailed below, has been vital to achieve this aim:

- ABI TRS has operationalised it's 12-week rehabilitation program to commence with 2 weeks in-reach prior to discharge, and 10 weeks post-discharge community rehabilitation. The contribution of the in-reach phase to the overall ABI TRS program is described further in section 7.1 below.
- ABI TRS senior staff attend weekly BIRU case conference, in which they actively collaborate with BIRU treating team to determine the most appropriate discharge trajectory for BIRU patients. If referral to ABI TRS is proceeded with, joint discussion contributes to formal completion of the ABI TRS Admissions Checklist and Risk Screen, which are mandatory documents required for formal acceptance of referral.
- Referrals from BIRU and other inpatient rehabilitation units must be made at least 2 weeks prior to hospital discharge. Referrals from Jasmine Unit or other extended rehabilitation inpatient units are made at least 4 weeks prior to hospital discharge.
- Prior to BIRU case conference, ABI TRS generates a weekly update, which is provided to BIRU and Jasmine Unit. This outlines current and upcoming ABI TRS caseload list, key worker and therapy team allocation, and predicted hospital discharge dates and locations for each referred ABI TRS client. A current ABI TRS staff list, including contact details, forms part of this document. This weekly update ensures the inpatient rehabilitation units are regularly informed of ABI TRS' understanding of discharge plans so that any updates or corrections can be made in an expedient manner.
- ABI TRS also accesses the finalised BIRU discharge summary from their internal client database to ensure access to accurate clinical information continuity of care. Clinical handover from the inpatient units is also provided.

6.5. Discharge Pathways

The discharge plan post-ABI TRS is co-ordinated by the Key Worker, and clients are informed of the discharge plan prior to discharge. The plan typically involves:

- Referral to future ABI services (Acquired Brain Injury Outreach Service; review at BIRU Outpatient Review clinic in 4-6 months)
- Referral to other rehabilitation services as required (e.g., local rehabilitation, BIRU Day Hospital, private

providers- either self-funded by clients or as part of access to insurance schemes such as NIIS-Q or NDIS)
- Referral to other community services as required (e.g., community linkages)
- Clients receive a discharge summary detailing their progress and discharge plan. Clients' GPs and future services will receive a full ABI TRS Discharge Summary.

7. ABI TRS Rehabilitation Program Description

ABI TRS Model of Care development and implementation has resulted in the following rehabilitation program being offered as standard care:

7.1. In-reach: Pre-hospital Discharge Program Planning and Work-Up

- Routine attendance by ABI TRS Key Worker at BIRU Discharge Family Meeting to introduce ABI TRS to client/family as an integrated post-discharge BIRS service, and to receive up-to-date clinical information from BIRU treating team.
- Education regarding ABI TRS is provided to clients and families, including individual planning and support for transition.
- ABI TRS Program and Research Evaluation consent is obtained pre- hospital discharge, including from substitute decision-makers when necessary.
- Pre-discharge baseline evaluation measure administration. This aligns well with comprehensive clinical assessment information collection, preliminary community goal setting and planning, and builds valuable rapport with clients and families prior to discharge.
- Finalisation of hospital discharge planning, ensuring all equipment and follow-up services (e.g., NDIS) will be in place when discharged home.
- Clinical handover between ABI TRS & BIRU teams, to ensure discharge planning is appropriate for transition to community setting and client circumstances. This may include joint sessions within individual disciplines if required.
- Key Worker and clinical team allocation by ABI TRS, so that community rehabilitation can commence immediately post-discharge.

7.2. Community rehabilitation program- program components

- Comprehensive clinical assessment using ICF framework conducted by Key Worker and treating team members with applicable discipline focus.
- Assessment via key clinical outcome measures to identify client's functioning across a range of areas, including psychosocial reintegration, quality of life, mood, identifying key sentinel events, plus identifying levels of activity, function, participation and care needs.
- Interdisciplinary goal setting and rehabilitation planning processes and program documentation that underpin rehabilitation program delivery.
- Individual therapy utilising a functional approach with an emphasis on resumption of and participation in meaningful life roles (including vocation) and community re-integration.
- A team approach to vocational rehabilitation.
- Access to Moving Ahead group program, with a rolling schedule of rehabilitation modules: cognitive-communication/psychosocial/functional exercise/ ABI education.
- Access to group programs targeting specific needs: Communication Partner Training, Strength2Strength Program for family members.
- Family- oriented approach to rehabilitation, e.g., specific resources for children of parents with ABI.
- Use of technology-based rehabilitation is usual practice.

- Embedded rehabilitation medicine specialist services within ABI TRS.
- Integration of the Pilot Project into the statewide BIRS service, ensuring future follow-up within the BIRS continuum.
- Appropriate post- discharge referrals, e.g., NDIS, NIIS, generalist community rehabilitation.

7.3. Community rehabilitation program- Key Worker role

Each ABI TRS client is allocated to a Key Worker. Core elements of the Key Worker role include:

- Key ABI TRS contact for the client and their family/significant other, and for treating team of discharging unit during transition from hospital to home.
- Practical planning with client/family pre- hospital discharge, to individualise preparation for transition to community, e.g., confirm family capacity for any support arrangements.
- Liaison with treating team of discharging unit to ensure all equipment and follow-up services (e.g., NDIS) will be in place at discharge.
- Providing education and support to client/family prior to and during the transition home
- Responsibility for risk screening and risk management throughout ABI TRS community program
- Liaison between client, family and ABI TRS treating team
- Case coordination of rehabilitation program- plan and organise interdisciplinary goal setting, lead case conference discussion and program reviews for client, trouble-shooting problems, liaise with external funders/service provides, e.g., NIIS, NDIS
- Lead and finalise discharge from service, including referral on to future services)

7.4. Community rehabilitation program- Processes and documentation

- *Goal setting and rehabilitation planning:* Goals are set in conjunction with clients; the team then meets to complete interdisciplinary goal setting and plan the ABI TRS rehabilitation program in week 4-5; goals are reviewed midway and at the end of the program. Goal scoring is conducted at the end of the program.
- *Team case conferences* (initial, midway, final): These align with scheduled in-program specialist rehabilitation medical reviews (admission, final), to ensure key clinical information is shared amongst treating team in a timely manner and team-based discussion occurs regarding identified issues / concerns.
- *Documentation in ieMR.* ABI TRS uses Queensland Health's integrated eletronic Medical Record (ieMR) platform for documentation of all client information, utilising templates for key entries to ensure consistency of program documentation
- *Feedback regarding client accommodation* forms part of routine service evaluation
- *Client service satisfaction survey* forms part of routine service evaluation, and complements formal research evaluation of service
- *Staff activity:* Codeset has been purpose-built for data collection of staff clinical activity

8. Research, Clinical Practice and Service Delivery

8.1. Service Evaluation Research

As the ABITRS is being implemented as a 5-year pilot project to examine proof of concept of the proposed service model, an embedded research evaluation to critically appraise the impact of the service over time is in progress and will examine: early community integration outcomes of individuals with ABI and their family members; the benefits of ABI TRS within an integrated continuum of specialist ABI rehabilitation services; and the impact of ABI TRS for the broader health, community services and insurance sectors.

This evaluation is utlilising a mixed method research design, comprising 5 components:

1. Prospective longitudinal study of clinical outcomes.
2. Retrospective comparative analysis with historical dataset.
3. Mixed method process evaluation of the implementation of ABI TRS within the BIRS continuum & community referral points.
4. Impact evaluation to examine service outputs relating to the BIRS continuum.
5. Cost-effectiveness analysis of the ABI TRS model.

8.2. Clinical Research Program

Research grants have been sought and awarded to progress speicifc clinical research areas, namely:

- develop a formal framework for Vocational Rehabilitation in Transitional ABI Rehabilitation ABI TRS Early ABI Vocational Rehabilitation Framework
- knowledge translation of an evidence-based exercise physiology program into a multi-professional ABI rehabilitation program,
- implementation of the knowledge translation model for an evidence-based exercise physiology program into a multi-professional ABI rehabilitation program,
- awarding of a clinical fellowship to progress work on vocational rehabilitation tools and processes for managing communication changes following ABI

Research partnerships have also been established, for ABI TRS to contribute to research:

- Research project with University of Queensland to evaluate the client experience of the Moving Ahead group program.

9. Operations

9.1. Workforce- Staffing Profile

The ABI TRS rehabilitation service operates as a multidisciplinary team and includes:

- Speech Pathology (1.6 FTE)
- Occupational Therapy (2.6 FTE)
- Social Work (1.6 FTE)
- Clinical Psychology (1.0 FTE)
- Neuropsychology (0.8 FTE)
- Physiotherapy (1.6 FTE)
- Exercise Physiology (1.0 FTE)
- Allied Health Assistant (2.0 FTE)
- Rehabilitation Medicine Medical officers (Registrar 0.5 FTE and Rehabilitation Consultant 0.2 FTE)
- Research and Development Officer (0.5 FTE)
- Clinical Lead (1.0 FTE)
- Service Manager (1.0 FTE)
- Administrative Support (1.5 FTE)

9.2. Building and Infrastructure

Leased office building houses staff, and is also used for centre-based group and individual client programs. ABI TRS has 6 fleet vehicles are located on-site, for easy staff access. During peak demand periods, additional vehicles can be accessed through the wider PAH fleet, subject to aavailability. ABI TRS also has 5 public transport cards (go-cards) for staff use.

Client accommodation offered for regional/rural clients is located close by, with a mix of accommdation types- houses, units- to accommodate the varied needs and preferences of ABI TRS clients.

9.3. Current Funding

Pilot Project funding from MAIC is secured until 30 June 2021

10. The Future

An immediate priority for the future of ABI TRS is procurement of ongoing funding for service delivery beyond current Pilot Project period which ceases 30 June 2021.
Should ongoing funding be secured, ongoing service priorities would include:

- Implementation of new ABI TRS transitional rehabilitation Model of Care beyond pilot project period
- Continue implementation of ABI TRS Early ABI Vocational Rehabilitation Framework
- Embed current telehealth service delivery and staff training as core practice
- Promotion and publication of clinical tools and service components developed during pilot project – vocational rehabilitation, interdisciplinary goal setting, interdisciplinary group therapy programs, telehealth-based services and education tools for carers and families post-ABI.

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