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Supplementary File 1. Content analysis of responses from Round 1 generated from n=38 participants.

Question 1: What provider demographics should be routinely collected for all rehabilitation patients in order to describe care and outcomes?	
Categories	**Subcategories**
Rehabilitation unit description (n=52)	1. Name of ward/clinic (n=24)
	2. Access to other specialty services (n=6)
	3. Setting: Inpatient/Outpatient, day therapy (n=5)
	4. Staffing levels (e.g., Ratio of each discipline to client numbers) (n=5)
	5. Hours/days of operation (i.e., 5 vs 6 vs 7 day rehabilitation service) (n=4)
	6. Clinic/Ward size (n=4)
	7. Services available (n=2)
	8. Clinic/Medicare code (n=1)
	9. Flex beds available (n=1)
General service description (n=51)	1. Location (n=30)
	2. Facility/Hospital name (n=6)
	3. Public/Private service (n=5)
	4. Post-code (n=3)
	5. Service capability level i.e., Clinical Services Capability Framework level of service provision (n=3)

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	6. Hospital and health service district (n=2)
	7. Funding model (e.g., Activity based funding) (n=1)
	8. Geographical remoteness (n=1)
Treating team (n=44)	1. Treating disciplines (e.g., physicians, nursing, allied health disciplines, assistants, recreation officer, animal therapists) (n=30)
	2. Name and contact details of treating staff (n=6)
	3. Qualifications and level/years of experience (n=3)
	4. Type of service provided (e.g., consult and intervention, general or specialist) (n=3)
	5. Occasions of service (and time spent) for each client for each discipline (n=2)
Facilities and resources (n=7)	1. Rehabilitation care environment features (e.g., gyms, dining rooms, outdoor areas, independent living rooms, hydrotherapy, space for family, delta dogs) (n=5)
	2. Specialist equipment (e.g., robots) (n=1)
	3. Specialist outpatient therapies (e.g., hypertonicity, memory, vestibular clinics) (n=1)

Question 2: What information about patients and caregivers should be routinely collected for all rehabilitation patients in order to describe care and outcomes?

Patient / Caregiver information	Categories	Subcategories
Patient information	Premorbid functional and community participation	1. Preadmission living situation (e.g., alone/with others) (n=33)
		2. Existing family/carer supports available (n=20)
		3. Premorbid level of function/mobility/activities of daily living (n=11)

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information/history (n=102)	4. Employment/income status and vocation (n=9)
	5. Existing community supports/ social connections (n=6)
	6. Preadmission care/community services (n=5)
	7. Existing home modifications/layout (n=5)
	8. Hobbies, interests or other activity goals (n=4)
	9. Premorbid communication (n=2)
	10. My Aged Care referrals/assessments (n=2)
	11. Premorbid level of community participation (n=2)
	12. Intent of return to work (n=1)
	13. Preadmission responsibilities (n=1)
	14. Driving status (n=1)
Current diagnosis and impairments (n=97)	1. Primary diagnosis/Presenting complaint/reason for referral (n=30)
	2. Level of function/mobility/Activities of daily living (n=14)
	3. Decision-making capacity (n=13)
	4. Cognitive impairment (n=11)
	5. Behaviour challenges (n=8)
	6. Impairment (including severity) (n=7)
	7. Frailty (n=3)
	8. Communication impairment (n=3)
	9. Dysphagia, need for modified diet (n=2)
	10. Date of onset/time since diagnosis (n=2)

SUPPLEMENTARY MATERIAL

11. Risk of clinical incidents (e.g. falls, malnutrition) (n=2)

12. Rehabilitation complexity (n=1)

13. Condition complexity (n=1)

Premorbid health information/history (n=61)

1. Medical/health history (n=32)

2. Psychosocial history (n=8)

3. Access to care and clinic (n=8)

4. Nutrition status (n=2)

5. Previously received rehab (n=2)

6. Medications (n=2)

7. Previous hospital admissions (n=1)

8. Sensory impairments (hearing, vision etc) (n=1)

9. Usual diet (n=1)

10. Family history (n=1)

11. Drug and alcohol history (n=1)

12. Premorbid history (n=1)

13. Ability to travel/access transport to services (n=1)

Basic demographic information (n=54)
* Codes for "Demographics" (n=3)

1. Age, Date of birth (n=16)

2. Sex/gender (n=11)

3. Education level (n=7)

SUPPLEMENTARY MATERIAL

included in the overall count (n=54)

4. Funding source for admission (n=6)

5. Address (n=3)

6. Ethnicity (n=2)

7. Aboriginal and Torres Strait Islander status (n=2)

8. Language (n=2)

9. Weight (n=2)

Discharge/post care related information (n=44)

1. Discharge destination (n=14)

2. Satisfaction with discharge destination (n=1)

3. Need for carer/caregiver (n=7)

4. Need for services post-discharge (n=5)

5. Referral to other services/Services accessed when no longer receiving active rehab (n=4)

6. Ongoing post-discharge care requirements (n=4)

7. Date of discharge from unit/hospital (n=2)

8. Discharge barriers (n=2)

9. Driving instruction on discharge (n=2)

10. New residential aged care facility (RACF) admission (n=1)

11. Discharge summary completion on time (n=1)

12. Advanced care planning (n=1)

SUPPLEMENTARY MATERIAL

	Participation (n=36)	1. Rehabilitation goals e.g. Goal Attainment Scaling (n=12)
		2. Client expectations (n=9)
		3. Compliance (n=6)
		4. Participation (n=5)
		5. Motivation (n=3)
		6. Patient ability to identify goals (n=1)
	Client pre-morbid health rating/Quality of life (n=12)	1. Health-related Quality of life (n=8)
		2. Wellbeing/worry/anxiety (n=2)
		3. Satisfaction with usual living situation (n=1)
		4. Satisfaction with pre-morbid function (n=1)
	Admission/clinic information (n=5)	1. Australian National Sub-acute and Non-Acute Patient (AN-SNAP) classification of rehabilitation admission (n=2)
		2. Diagnosis-related group (DRG) of acute admission (n=1)
		3. Where/who client was referred from (n=1)
		4. Date and time of admission (n=1)
	Other (n=1)	1. Participation in research projects (n=1)
Caregiver information	Capacity to provide care (n=33)	1. Barriers to care (e.g. financial, logistics, transport, emotions, work, children) (n=14)
		2. Capacity to provide care (e.g., logistics, transport, emotional) (n=13)
		3. Communication barriers (n=2)

SUPPLEMENTARY MATERIAL

	4. Level of burden (n=1)
	5. Willingness/capacity to learn (n=1)
	6. Receipt of financial support as carer (n=1)
	7. Rating of confidence in care role (n=1)
Caregiver demographic information (n=25)	1. Relationship to client (n=6)
	2. Living arrangement (i.e. with client, how far away) (n=6)
	3. Level of involvement including frequency of contact (n=6)
	4. Employment, hours of work (n=2)
	5. Age (n=2)
	6. Sex/gender (n=1)
	7. Ethnicity (n=1)
	8. Language (n=1)
Caregiver health information (n=16)	1. Health issues that impact on ability to provide care (n=6)
	2. Health history (n=5)
	3. Rating of sense of wellbeing/worry/anxiety (n=2)
	4. Rating of own health (n=1)
	5. Mental health (n=1)
	6. Social participation (n=1)

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Expectations (n=6)	1. Family expectations/goals of rehab (n=5)
	2. Understanding of rehabilitation (n=1)
Supports available (n=3)	1. Access to support (services, family, community, respite) (n=3)
Living situation (n=3)	1. Home living situation (n=2)
	2. Usual residence (n=1)

Question 3: What information about service delivery and interventions should be routinely collected for all rehabilitation patients in order to describe care and outcomes?

Categories	Subcategories
Intervention / Service delivery information (n=108)	1. Type of intervention (assessment, treatment, education, counselling, self-management, support) (n=27)
	2. Service delivery model (e.g. individual, group) (n=24)
	3. Dose/Intensity of therapy (n=16)
	4. Duration and length of intervention (n=10)
	5. Mode of delivery (e.g., telehealth vs face to face) (n=6)
	6. Frequency of intervention (n=5)
	7. Occasions of service (n=4)
	8. Barriers to intervention (including factors impacting on ability to provide desired treatment intensity) (n=3)
	9. Involvement of recreation activities (n=2)
	10. Date of intervention (n=2)

SUPPLEMENTARY MATERIAL

11. Changes to therapy (n=1)

12. What was done in session (n=1)

13. Non-pharm treatment (n=1)

14. Whether intervention match patient goals (n=1)

15. Received weekend service (n=1)

16. Total therapy sessions (n=1)

17. Aim of the session (n=1)

18. Major clinical reasoning decisions for treatment plan or change (n=1)

19. Adherence to treatment (n=1)

Disciplines / Clinicians involvement (n=31)	1. Interdisciplinary care (n=17)
	2. Discipline that performs intervention (including provider of service e.g., professional, allied health assistant, student) (n=10)
	3. Hours/sessions per day in therapy (across different disciplines) (n=3)
	4. Hours of intervention provided by discipline (n=1)
Family and patient involvement (n=20)	1. Education provided to patient and caregiver (e.g., post discharge care, communication partner training) (n=8)
	2. Patient goal (n=5)
	3. Family and/or advocate involvement and support (n=3)
	4. Family meetings (n=2)

SUPPLEMENTARY MATERIAL

	5. Care plan provided to the patient (n=1)
	6. Case conferences (n=1)
Care plan (n=12)	1. Psychosocial support (e.g., Counselling) (n=3)
	2. Management plan (including discharge plan) (n=2)
	3. Home visits (n=2)
	4. Instructions for ongoing care (e.g., living situation, social circumstances) (n=2)
	5. Post discharge follow-up (e.g., needed or not, with which disciplines) (n=2)
	6. Future goals at discharge from rehabilitation service (n=1)
Resources needed (n=5)	1. Equipment and consumables (n=2)
	2. Level of resources required (e.g., two therapists vs semi supervised) (n=1)
	3. Time spent moving (n=1)
	4. Technology assisted therapy (n=1)
Missed appointments (n=3)	1. Missed appointments and reasons (e.g., staffing limitations, patient compliance) (n=3)
Indirect patient activities (n=2)	1. Measurement of patient related activities (e.g., writing reports, designing patient specific therapy activities, time spent organising equipment) (n=2)
Cost of care provision (n=1)	1. Cost-benefit rating of rehabilitation (e.g., financial outlay, time, inconvenience) (n=1)
Medication (n=1)	1. Medication assessment prior to discharge or need to implement dose administration aid (n=1)

Question 4: Which outcomes should be routinely collected for all rehabilitation patients?

Categories	Subcategories

SUPPLEMENTARY MATERIAL

Impairment (n=39)

1. Change in function (e.g., mobility) (n=25)
2. Change in impairment (n=12)
3. Change in diagnosis (n=1)
4. Length of time to return to function or change in function (n=1)

Satisfaction and experience (n=35)

1. Satisfaction with care (e.g., goals attained, clinician and services) (n=25)
2. Patient and family service experience (n=5)
3. Complaints about services (n=2)
4. Ease of navigating through service providers (n=1)
5. Reasons why people ceased treatment (n=1)
6. Compliments (n=1)

Admission and readmission (n=30)

1. Length of stay in acute/rehab (n=15)
2. Waiting times (for review and admission) (n=10)
3. Readmission (n=3)
4. Changes in episode of care (e.g., Ward transfers due to deterioration) (n=2)

Carer outcomes (n=29)

1. Carer quality of life (n=10)
2. Carer confidence (n=5)
3. Carer stress (n=5)
4. Carer wellbeing (n=5)

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	5. Families/carers participation (n=2)
	6. Carer needs (n=1)
	7. Third-party disability (n=1)
Quality of Life (n=28)	1. Quality of Life (n=28)
Psychosocial and emotional wellbeing (n=18)	1. Psychological wellbeing (n=16)
	2. Social well-being (n=1)
	3. Emotional response to treatment (n=1)
Goal attainment (n=18)	1. Goal attainment (n=16)
	2. Unmet needs/goals (n=2)
Activity and Participation (n=15)	1. Activity and participation (n=7)
	2. Ability to return to previous roles/functions/activities (n=3)
	3. Activities of daily living (n=3)
	4. Community participation (n=2)
Health outcomes (n=12)	1. Cognition (n=5)
	2. Mortality (n=2)
	3. Weight (n=2)
	4. Pain (n=1)
	5. Frailty (n=1)

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	6. Dysphagia / specific diet (if any) (n=1)
Adverse events (n=9)	1. Complications/Adverse events and impact on rehabilitation outcomes (e.g., falls, infections) (n=9)
Independence (n=4)	1. Level of Independence (n=4)

* n= number of codes within category and subcategory.

** Note: Question 5 of Round 1 was "Is there any other information that should be routinely collected for all rehabilitation patients in order to describe care and outcomes?" and responses were added to the relevant categories developed for each of the previous questions.