

MANCHESTER NEEDS TOOL FOR INJURED CHILDREN (AND YOUNG PEOPLE) (MAnTic)



Sam Jones 2020

Why measure needs?

REHABILITATION — 2030 — a call for action

- *World Health Organisation Rehabilitation 2030 Call to action.*
- *“to draw attention to the increasing unmet needs for rehabilitation throughout the world”;*
- *“to highlight the role of rehabilitation in achieving the Sustainable Development Goals (SDGs) proposed by the United Nations”*
- *“to call for coordinated and concerted global action towards strengthening rehabilitation in health systems”*
- *Availability of robust evidence for rehabilitation.*



Unmet rehabilitation needs in Children's trauma



Acute Rehabilitation

- Service specification
- Major Trauma standards
- Rehabilitation Prescription
- Rehabilitation & Trauma Co-ordinators

Community Services

- Inadequate, inequitable, inaccessible, delayed
- Short LOS – needs develop after hospital
- ??Monitoring





Patient
Reported
Outcome
Measure
(PROM)

Patient
Reported
Needs
Measure

Patient
Reported
Experience
Measure
(PREM)

*Methodology of their
development is the same*



Manchester University
NHS Foundation Trust

MANTIC Development

Gold standard methodology



Co-production with injured children & families

STAGE 1: Validity

Interviews with injured children and parents

(Generate MANTIC questions)

STAGE 2:
Interviews with parents to test questions

(Test questions: clear/easy to understand)

STAGE 3:
Completion of questionnaire by target population

(144)

(test if feasible & acceptable)

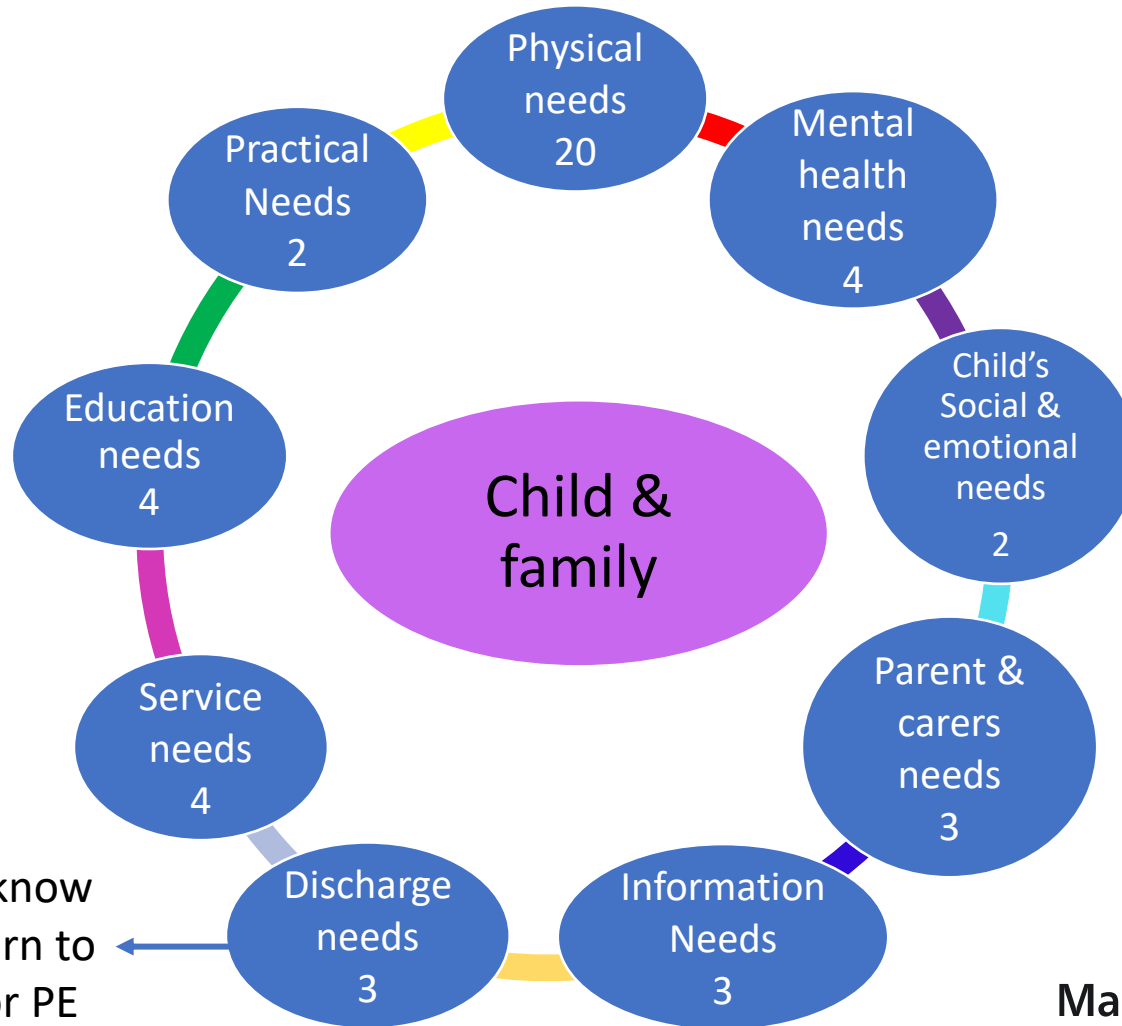
STAGE 4:

Psychometric analysis !!!

(Statistical tests to determine most important questions to keep for the final MANTIC)

Patient and public involvement

Mantic : Measure the 'holistic' needs of the child and family (9 dimensions of need)



We need to know when to return to school and/or PE lessons.

Mantic completion: Format

A2. We need advice about managing pain, comfort and/or headaches.

Strongly disagree	Disagree	Agree	Strongly agree	Not applicable
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For each statement, please circle/tick the word which best describes **your needs at the moment**.

Strongly disagree	Disagree	Agree	Strongly agree	Not applicable
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- 5 Point Likert scale
- No neutral response
- Forces an answer (avoids defaulting to neutral response)
- Source frustration
- Consistent format


Mantic completion: how?

A2. We need advice about managing pain, comfort and/or headaches.

Strongly disagree	Disagree	Agree	Strongly agree	Not applicable
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For each statement, please circle/tick the word which best describes **your needs at the moment**.

Strongly disagree	Disagree	Agree	Strongly agree	Not applicable
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- Circle or tick
- N/A : to ensure can be used for all injuries
- N/A – scored zero
- Strong disagree- strongly agree – scored 1 to 4
- Higher score – stronger need

Mantic completion: who?



Family Unit
(Parent/Guardian and
child/young person)

Parent only
Child unable (Severe injuries)
Too young

Child (with parents consent)
Sufficient
comprehension/age

Mantic completion: who?

Majority of questions framed as **WE**

A5. We need support to identify alternative activities, whilst activities are restricted.

Strongly
disagree

Disagree

Agree

Strongly agree

Not applicable

Emotional questions **differentiate** between **parent/carer**

D1. I (parent/carer) need help for mental health problems (e.g. anxiety, panic attacks, post-traumatic stress disorder, flashbacks, low mood).

Strongly disagree

Disagree

Agree

Strongly agree

Not applicable

D2. I (child/young person) need help for mental health problems (e.g. anxiety, panic attacks, post-traumatic stress disorder, flashbacks, low mood).

Strongly disagree

Disagree

Agree

Strongly agree

Not applicable

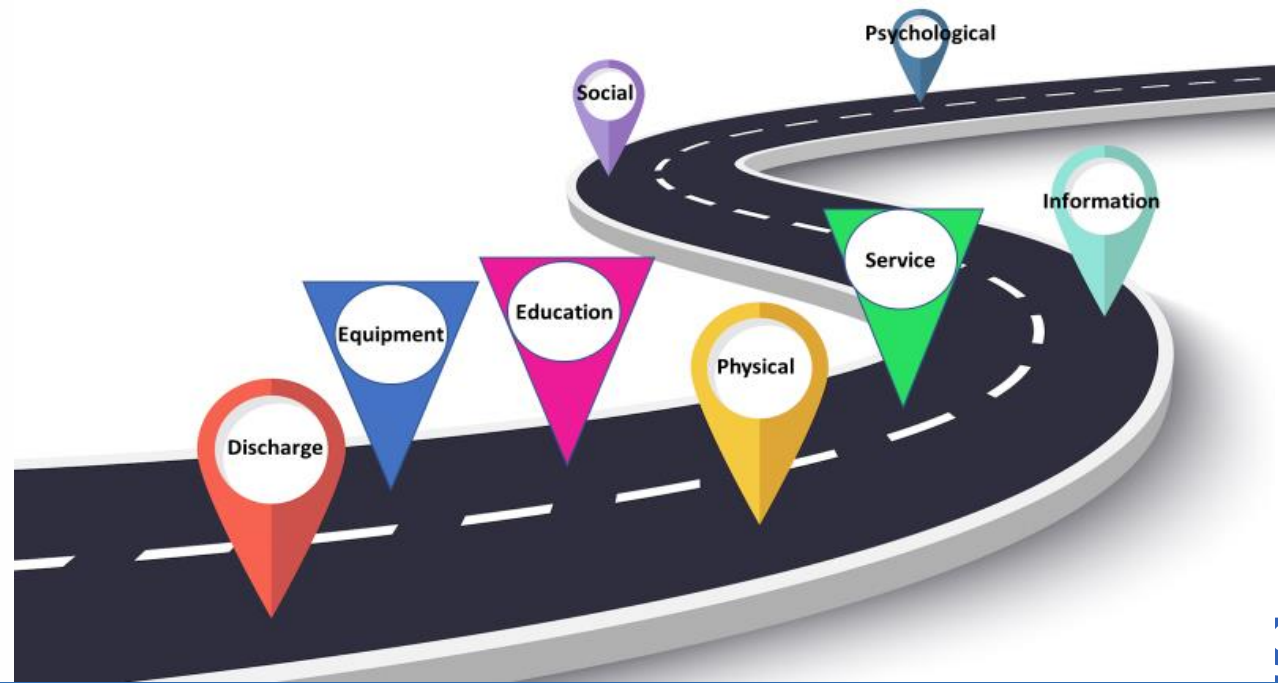
Mantic completion: who?

- Children/infants aged 2-16 years
- Any type of major trauma injury (*Questions designed to cover all injuries*)
- Isolated injury
- Multiple injuries



Mantic completion: when?

- At any point in the child's recovery
- Once hospital discharge discussed & throughout recovery
- How frequently? (optimal points for data collection)



Mantic: where?



Hospital inpatient



Outpatient clinic visits



Follow up in the community



Post? (??explanation and follow up)

Mantic completion: scoring ?

- Not intended to be summated (total score) to provide an indication of the overall severity of the need
- Identify needs (type and frequency)
- Complete individual sections



How will the MANTIC help patients?

- Holistic assessment (**throughout recovery**)
- Helps patients to think about their needs
- Self Report: strengthens patient voice
- Ask for help
- Monitor needs throughout recovery
- Timely signposting to services
- Basis for shared decision making

How will the MANTIC help rehabilitation professionals & services?

- Address gap in evidence (post acute/longer term data)
- Gap analysis
- More targeted use of resources
- Identify services which need further development
- Remodelling of rehabilitation
- Critical timeframes to assess needs
- Your ideas?



**Evidence based
rehabilitation**

NHS

Manchester University
NHS Foundation Trust

Mantic: where to find it?

- Clinical Rehabilitation (Open access)
- <https://pubmed.ncbi.nlm.nih.gov/36872874/>
- Supplementary material



With thanks to all research participants,
participating centres, trauma co-ordinators,
rehabilitation co-ordinators, supervisory team & all
other people who helped
(S. Tyson, J. Yorke, N. Davis)

