What factors affect access to stroke rehabilitation?: A systematic review

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Aim
To identify factors that affect clinical decision-making about who should receive stroke rehabilitation.

Methods
- Searches completed on 4 databases (from inception to August 2018): CINAHL, PsycINFO, MEDLINE, AMED.
- No restrictions on study design or publication date, English language only restriction.
- Search terms: Stroke OR cerebrovascular accident OR CVA AND rehabilitation OR therapy AND decision making OR clinical reasoning OR clinical judgement.

Inclusion criteria:
- Full text primary research published in peer-reviewed journal.
- Participants providing any type of stroke service.
- Focussed on clinical decision-making for referral/admission to stroke rehabilitation, prioritisation criteria, or decision-making about rehabilitation potential.

Exclusion criteria:
- Studies focussed on decision-making between specific interventions or treatments.
- Studies that included a mixed diagnosis case-load excluded unless separate results for stroke reported.
- Studies with patient participants.

Study size varied, from a study of one multi-disciplinary team to 77 discharge planners.
- Mix of countries: Australia (n=5), Canada (n=2), UK (n=2), Germany (n=1), USA (n=1), multiple European countries (n=2).
- 292 clinicians in total were included in the studies.

Results
- 1915 papers identified.
- 13 met the inclusion criteria.
- Mix of methods: 8 qualitative, 4 quantitative, 1 mixed methods.
- Mix of countries: Australia (n=5), Canada (n=2), UK (n=2), Germany (n=1), USA (n=1), multiple European countries (n=2).
- Exclusions to services vary across international guidelines but no guidelines define who should receive rehabilitation.
- Majority of participants were clinical nurses, physiotherapists, occupational therapists.
- Study design and structure varied across countries.

Patient-related factors
- Age (n=5 studies): older age barrier for referral to rehab
- Pre- and post-stroke function (n=6): higher level of pre-stroke disability reduces likelihood of referral/acceptance
- Type/severity of stroke (n=3): more severe stroke reduces referral/acceptance
- Presence of dementia (n=6): perceived as reducing rehab potential
- Social/family support (n=6): less support, less likely to be admitted
- Motivation (n=5): ‘unmotivated’ patients less likely to be referred
- Demonstration of progress (n=5): observed improvement required for referrals
- Predictions about recovery/discharge (n=5): patients for residential care lower priority for rehab

Organisational factors
- Service pressures (n=7): bed/staff shortages result in pressure to discharge
- Insurance (n=2): barrier for referral to appropriate care

Characteristics of individual clinicians
- Clinical discipline (n=4): used to focus decisions/advocate for rehab
- Experience (n=3): lack of experience challenged decision-making
- Knowledge (n=5): lack of knowledge is a barrier for referrals e.g. perceiving certain patients cannot benefit from rehab, lack of awareness of services
- Emotions (n=5): ‘gut instinct’ informs decisions

Conclusions
- Decisions about referring/accepting patients into stroke rehabilitation are not only influenced by patient factors, but also organisational factors and characteristics of the clinician.
- Clinical decisions appear to take a subjective approach due to lack of clinical guidance about which patients should receive stroke rehabilitation.
- This review reveals the complexity of decision-making, and the balance of factors that may lead to a patient receiving, or not receiving post-stroke rehabilitation.