Rehabilitation forms a major component of stroke care but has only in recent years been subject to very rigorous research evaluation. This presentation will broadly discuss the evidence behind stroke rehabilitation interventions.

**Challenges to evidence-based practice in stroke rehabilitation.**

Conducting methodologically rigorous evaluations of rehabilitation interventions is complex. Most randomised trials of stroke rehabilitation have to be conducted in a single centre and are frequently too small to provide reliable answers in their own right. We need to include all relevant trials in rigorous reviews (systematic reviews) of the evidence.

**Defining and evaluating stroke rehabilitation interventions.**

One challenge is to have a framework for describing and discussion rehabilitation interventions. One simple approach is to classify them according to their levels of complexity. For example:

- **Service level** – provided by more than one individual, each providing a complex package of care and interacting with others in a complex way (e.g. stroke unit interventions).
- **Operator level** – provided by a single operator who provides a complex package of care that could incorporate both the personal interaction between the therapist and patient plus the therapy that they provide (e.g. occupational therapy for stroke patients living at home).
- **Treatment level** – evaluating the impact of a specific reproducible individual treatment (e.g. treadmill gait retraining).

The presentation will include a number of examples trying to illustrate the evidence behind common rehabilitation interventions that operate with different levels of complexity.

**Future developments**

Much of the evidence currently available to guide stroke rehabilitation practice concerns large complex packages of care. We will require more randomised trials and systematic reviews of rehabilitation interventions particularly those which focus on specific rehabilitation treatments. However, it is important to recognise that considerable progress could be made in routine stroke care by simply applying what we already know.