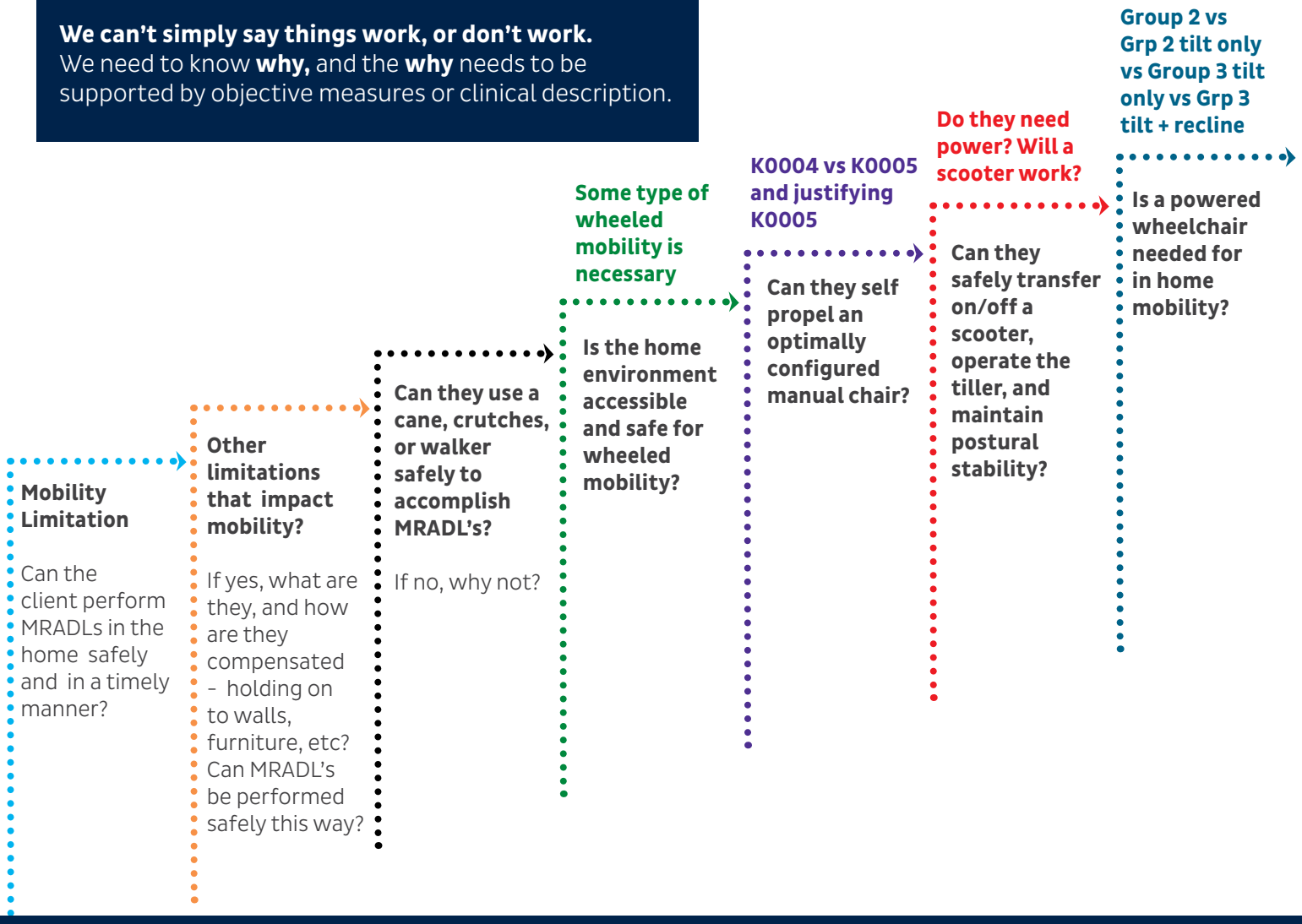
Guide to Ruling Out Lesser Equipment

Clinical Algorithm

When looking at each of these steps, be sure to ask about what a typical day looks like. For example, some clients we see are functional in the morning, but by noontime or evening have lost functional abilities.

Don't forget objective measures!

We can't simply say things work, or don't work. We need to know **why,** and the **why** needs to be supported by objective measures or clinical description.



Ruling out K0004 vs K0005

	K0001	K0002	K0003	K0004	K0005
Weight Capacity	250 lbs. or less	250 lbs. or less	250 lbs. or less	250 lbs. or less	250 lbs.
Weight	> 36 lbs.	> 36 lbs.	34 - 36 lbs.	<34 lbs.	<30 lbs.
Seat to Floor Height	20"	17" or 18"	18", 19" or 20"	18", 19", 20", 21" (sometimes lower)	adjustable
Width	16", 18"	16", 18" (20" often available)	16", 18" (20" often available)	14", 16", 18" (20" often available)	as needed
Depth	16"	16"	16"	14", 16" (18" often available)	as needed
Back Height	16", 17" (non adjustable)	16" or 17" (non adjustable)	16" or 17" (non adjustable)	16" or 17" (non adjustable)	adjustable
Axle	fixed	fixed	fixed	fixed/ minimal adjustable	fully adjustable
Armrests	fixed, detachable	fixed, detachable	fixed, detachable	fixed, detachable	fixed, detachable
Footrests	fixed, detachable, swingaway	fixed, detachable, swingaway	fixed, detachable, swingaway	fixed, detachable, swingaway	fixed, detachable, swingaway

What are some special features of the K0005 that need to be justified with objective measures in ruling out a K0004?

➡ **Axle configuration - functional things that happen at the axle:**

- Center of gravity moves wheels forward or backward to align with the client's shoulder (be specific about how much). To provide appropriate relationship to the upper extremities for efficient propulsion. Measures to consider as they relate to the movement needed to propel:
  - o Strength of individual UE joints, including hand grip
  - o Active Range of motion of individual upper extremity joints
  - o Spasticity measures and how spasticity/incoordination/ motor control interfere with propulsion
- Moving the wheels forward can also reduce overall wheelchair length for increased accessibility
- Rear seat to floor height provides more or less "dump" or "slope" of greater than 2.5"
  - o How does it relate to trunk control and/or non-reducible postures, such as kyphosis?
  - o What is the difference between front and rear seat to floor height needed?
- Camber provides varying degrees of lateral stability
  - o Do they need the lateral stability?
  - o Why? How much? For things like reaching over and picking things up off floor, reaching for such things as laundry in the dryer or scooping a child up?
- Sleeving wheels in and out- brings wheels close to or farther away from the frame
  - Why? Likely to gain or lose weight?

➡ **Front seat to floor height:**

- With the thickness of the cushion considered, does the client need a higher or lower seat to floor height than is available on a K0004?

Describing the need for power tilt and ruling out power tilt only, when adding recline

Independent pressure relief

Postural control

Powered Tilt Only

Pain reduction

Decreasing the effects of spasticity during pressure relief and postural changes

- Strength of individual upper extremity joints
- Active ROM of upper extremity joints
- Trunk control and/or strength
- Pain Measures before and after intervention of tilt
- Spasticity measures: what elicits and calms the spasticity

RELATE THESE MEASURES TO THE ABILITY TO PERFORM SOME TYPE OF INDEPENDENT PRESSURE RELIEF AND HOLD IT FOR AT LEAST 2 MINUTES, OR 2 MINUTES PER SIDE. SUCH AS: PUSH UP, FORWARD LEAN, SIDE TO SIDE.

Need to perform intermittent catheterization

Reduce spasticity or pain due to increased ability to change positions

Power recline – justify why recline is needed and why tilt only will not work

Pressure relief

Postural control

- Same measures as for tilt EXCEPT that detail is needed about why the addition of recline makes a difference.
- Additional measure is pressure mapping, noting what angles the tilt needs to be and what angle the recline needs to be to obtain offloading of the buttocks

Group 2 power vs Group 3 power, when an optimally configured manual wheelchair will not suffice

- Generally, have to rule out Group 2 to get to Group 3. Clinicians should talk to their ATP/Supplier for specifics required by specific funders.
- Many major funders require the powered chair to be justified in the home first, and will not cover if the client only needs it outdoors. Check with the ATP/supplier for information on specific funders. For these funders, therefore, there would have to be a reason that a client needs the things in the Group 3 column below, indoors.
- Medicare requires the client to have certain diagnoses to recommend a Group 3 power.

Group 2 Features	Group 3 Features
Limited battery life	Increased battery life
Minimal suspension	Better suspension
Limited obstacle height climbing ability (approx. 1”)	Better obstacle climbing, up to 4” depending on wheelbase configuration
Can add powered tilt	Can add multiple seating functions
Limited ability to accept other than standard joystick	Can accept a wide variety of alternative controls
Limited programming ability	Higher speeds/ more programming ability

When justifying features of a Group 3 powered chair, **clinical observations/interview, details from home accessibility, and/ or objective measures are required.**

Group 3 Features	Why they Might be Needed
Increased battery life	Client does not have access to be able to consistently charge the chair
Better suspension	Can be used to mitigate the effects of spasticity or pain caused by driving over uneven or bumpy surfaces
Better obstacle climbing	Need to negotiate obstacles such as door jambs, uneven outdoor surfaces, public transportation, small curbs, etc.
Multiple seating functions	Physical and functional needs as outlined by tilt/recline section
Alternative controls	Physical capabilities now, and in some cases, the future (i.e. ALS, MS) necessitate other than standard joystick
Higher speeds	Used for things like making it across a large intersection/ road while the light is still red
Programming ability	To allow chair driving characteristics to match client’s physical, cognitive and perceptual abilities