

Supplementary Figure 1.**Supplementary Figure 2. Summary of the framework analysis of free text responses.****Supplementary Figure 3. Current practice of neurology clinicians requesting genomic testing for MND.**

- A. Bar chart displaying the percentage of each clinician group (neurology consultant, neurology StR, MND nurse, genetics consultant, genetic counsellor) reported to undertake discussion of genomic testing with pwMND in clinic.
- B. Bar chart displaying the percentage of each clinician group (neurology consultant, neurology StR, MND nurse) who had either discussed GS with a pwMND (bar labelled request), discussed the results of GS with a pwMND (bar labelled "result") or both aspects (bar labelled "both").

Supplementary Figure 4. Hierarchical cluster analysis of barriers to GS reported by neurology clinicians.

Hierarchical clustering analysis was performed using Clustergrammer, with Euclidean distance. Shaded boxes indicate that the barrier to offering genome sequencing was reported by the participant. The top level of the dendrogram identified 3 clusters. The top cluster reported barriers concerning time and paperwork. The middle cluster reported barriers relating to training and protocols. The bottom cluster reported also ethical barriers. The clinicians found in each cluster (top, middle, bottom cluster) are in supplementary table 8.

Supplementary Figure 5. Hierarchical cluster analysis of survey item scores and genetic counselling training.

Hierarchical clustering analysis was performed using Clustergrammer, with Euclidean distance. Shaded boxes in columns under each item represent the confidence level reported, with darker shades of red representing increased confidence. The Training column is shaded if the participant reported having training in Genetic Counselling. This demonstrates that clinicians with training tend to have higher survey scores than those

without. The clinicians found in each cluster (top, bottom cluster) are in supplementary table 9.

Supplementary Figure 6. Neurology Clinicians preferred resources to support genomic testing discussions.

The Venn diagram indicates that Neurology Clinicians would value multiple resources to support genomic testing discussions. The most frequent combination of resources (80) desired was a combination of training resources, local protocols, guidelines and a patient decision aid.