5. **The REhabilitation and recovery of peopLE with Aphasia after StrokE (RELEASE) Collaborators *(2022)* Dosage, Intensity, and Frequency of Language Therapy for Aphasia: A Systematic Review– Based, Individual Participant Data Network Meta- Analysis *Stroke* 53:00–00. DOI: 10.1161/STROKEAHA.121.035216**

Background and Purpose: Optimizing speech and language therapy (SLT) regimens for maximal aphasia recovery is a clinical research priority. We examined associations between SLT intensity (hours/week), dosage (total hours), frequency (days/ week), duration (weeks), delivery (face to face, computer supported, individual tailoring, and home practice), content, and language outcomes for people with aphasia.

Methods: Databases including MEDLINE and Embase were searched (inception to September 2015). Published, unpublished, and emerging trials including SLT and ≥10 individual participant data on aphasia, language outcomes, and time post-onset were selected. Patient-level data on stroke, language, SLT, and trial risk of bias were independently extracted. Outcome measurement scores were standardized. A statistical inferencing, one-stage, random effects, network meta-analysis approach filtered individual participant data into an optimal model examining SLT regimen for overall language, auditory comprehension, naming, and functional communication pre-post intervention gains, adjusting for a priori–defined covariates (age, sex, time poststroke, and baseline aphasia severity), reporting estimates of mean change scores (95% CI).

Results: Data from 959 individual participant data (25 trials) were included. Greatest gains in overall language and comprehension were associated with >20 to 50 hours SLT dosage (18.37 [10.58–26.16] Western Aphasia Battery–Aphasia Quotient; 5.23 [1.51–8.95] Aachen Aphasia Test–Token Test). Greatest clinical overall language, functional communication, and comprehension gains were associated with 2 to 4 and 9+ SLT hours/week. Greatest clinical gains were associated with frequent SLT for overall language, functional communication (3–5+ days/week), and comprehension (4–5 days/week). Evidence of comprehension gains was absent for SLT ≤20 hours, <3 hours/week, and ≤3 days/week. Mixed receptive- expressive therapy, functionally tailored, with prescribed home practice was associated with the greatest overall gains. Relative variance was <30%. Risk of trial bias was low to moderate; low for meta-biases.

Conclusions: Greatest language recovery was associated with frequent, functionally tailored, receptive-expressive SLT, with prescribed home practice at a greater intensity and duration than reports of usual clinical services internationally. These exploratory findings suggest critical therapeutic ranges, informing hypothesis-testing trials and tailoring of clinical services.