SPEECH DOMAIN (SYMPTOMS)

Category/Concept		Coherence in Measurement & Classification	Adequacy of Data		Relevance of Concept		
	Concerns	Explanation	Tier 1 Grade	Tier 2 & 3 Level	Bothersome mean %	Prevalence mean %	[Range]
SPEECH CHANGES	-	Concept category	A+	4	14%	45%	[7-66%]
Impaired articulation	Moderate	One Tier 1 study disconfirming presence in early PD <3YSD	C -	4	6%	29%	[6-38%]
Impaired verbal fluency	Moderate	Unclear definition of term; May overlap with cognitive word finding	D	x	-	5%	-
VOICE CHANGES	-	Concept category	B	x	2%	-	-
Impaired phonation	UA	Limited evidence; No disconfirming evidence	X	4	-	-	-
Monotone (Prosodic impairment)	UA	Limited evidence; No disconfirming evidence	D	x	6%	31%	[6-31%]
Quiet voice	-	No disconfirming evidence	B	x	6%	66%	[2-79%]
Altered voice quality	-	Important to retain per patient panel; Distinct from other voice changes	B	x	6%	32%	[6-49%]

Notes. PD= Parkinson's disease; UA=Unable to assess due to limited data; YSD=Years since diagnosis of Parkinson's disease; **Tier 1 Grade** *A+=100% (Green), A=75-99% (Green), B=50-74% (Yellow), C=25-49% (Orange), D=1-24% (Gray), X=No studies supporting presence in early PD (Black); **Tier 2 & 3 Level** 1=75-100% (Green), 2=50-74% (Yellow), 3=25-49% (Orange), 4=1-24% (Gray), x=No Tier 2 or 3 studies supporting presence in early PD (Black). Minus sign "-" in Grade or Level indicates presence of disconfirming evidence. Color coding is used for visual identification of concepts with greater supporting evidence in Grade and Level. For bothersomeness and prevalence, darker colors indicate higher average frequency in studies reporting.*