**Highlights**

* The items in the 5-item perioperative thirst discomfort scale may provide a reliable and precise way to order patients according to their thirst discomfort before procedures in interventional radiology or cardiac cath lab settings.
* The hierarchical pattern of responses to items in the 5-item perioperative thirst discomfort scale is interpretable in terms of respondents more easily endorsing items related to a general desire to drink water through to first endorsing more specific symptoms related to dryness of the mouth and lips prior to endorsing discomfort associated with the sensations of 'thick' saliva and 'thick' tongue.
* In more practical terms, a patient who reports feeling bothered by a sensation of thick saliva could be interpreted as experiencing worse thirst discomfort than a patient who did not endorse any of the items lower down on the item difficulty hierarchy (i.e. 'my lips are dry' and 'my mouth is dry').