

## Premonitory urges reconsidered: urge location corresponds to tic location in patients with primary tic disorders

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### Background

Tics are typically preceded by a premonitory urge (PU). However, only few studies investigated PU location and frequency in detail. Leckman et al. (1993)<sup>1</sup> used in their landmark study on PU location a full body scheme, where patients should mark PU locations for a small number (n=8) of "most common tics". They found that – contrary to clinical experience – PUs are not located in the same anatomic region as the corresponding tics.

### Research questions

- Are tics and the corresponding PUs located in the same anatomic region?
- Do PUs depend on specific characteristics of tics?
- How are PUs distributed over the body?
- Can PU distribution reported by Leckman et al. (1993)<sup>1</sup> be replicated?

### Methods

- Utilization of an online survey using the platform SoSci Survey
  - Only self-assessments could be used
- Data were evaluated descriptively using SPSS software
- Usage of **modified body scheme of Leckman et al. 1993**:
  - Participants could precisely mark PU location
  - PU location was inquired for each tic the participant experienced

### Results on PU Distribution

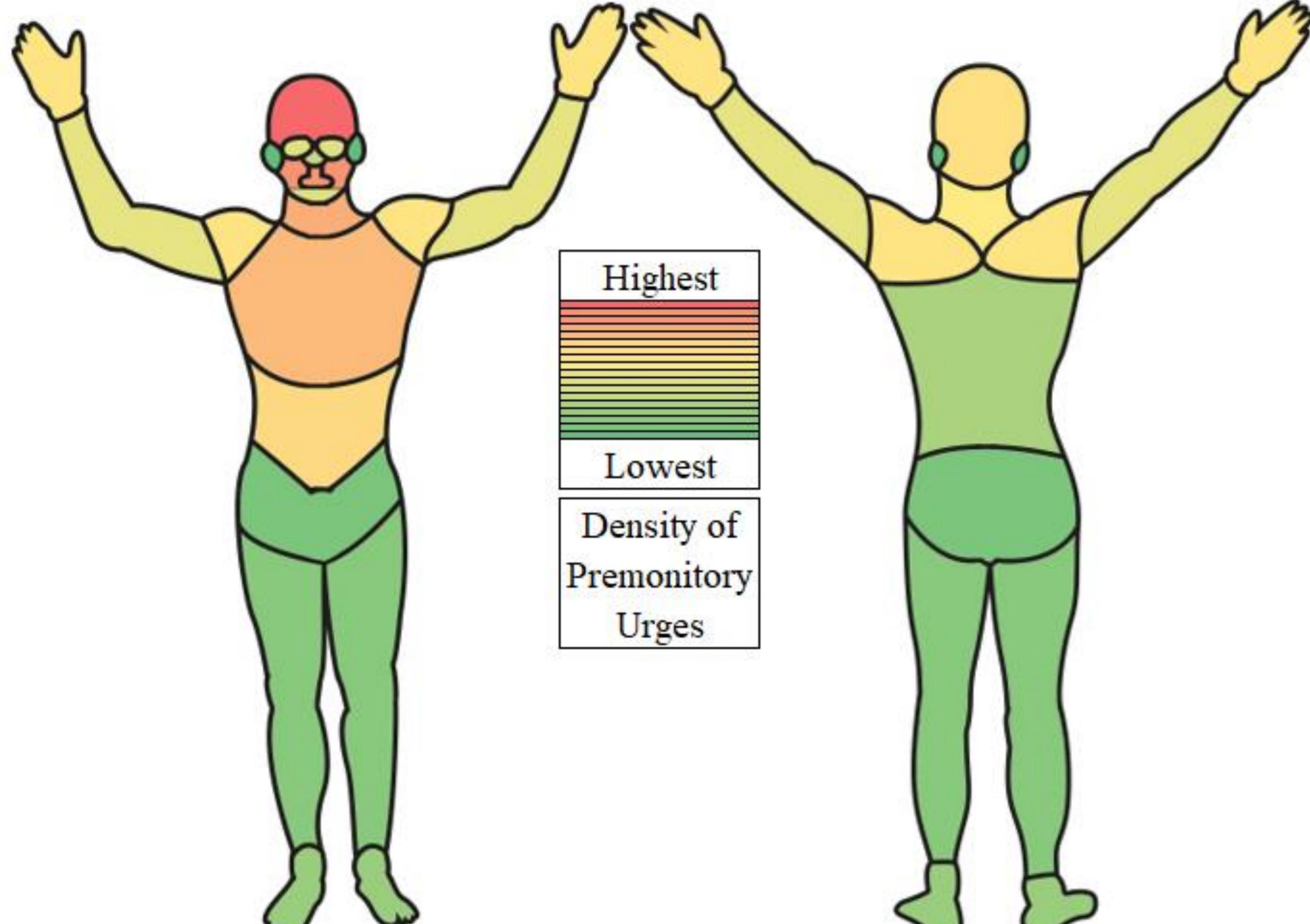


Fig 1: Density of premonitory urges (PU) for all tics (n=232 participants).

#### Location of PUs:

- Corresponds to tic location
- Follows a rostro-caudal distribution
- Is most common in the face and at the head

### Results on PU Occurrence

- N=291 adult patients were included
- 75.9% indicated that they experience PUs in general
- 97% of the participants reporting tic-specific PUs indicated a momentary relief after the PU for at least one of their tics
- Complex (motor and vocal) tics were more often preceded by a PU compared to simple (motor and vocal) tics with no difference between motor and vocal tics
- PUs were more frequently experienced at the front than on the back side of the body with no difference between right and left side of the body

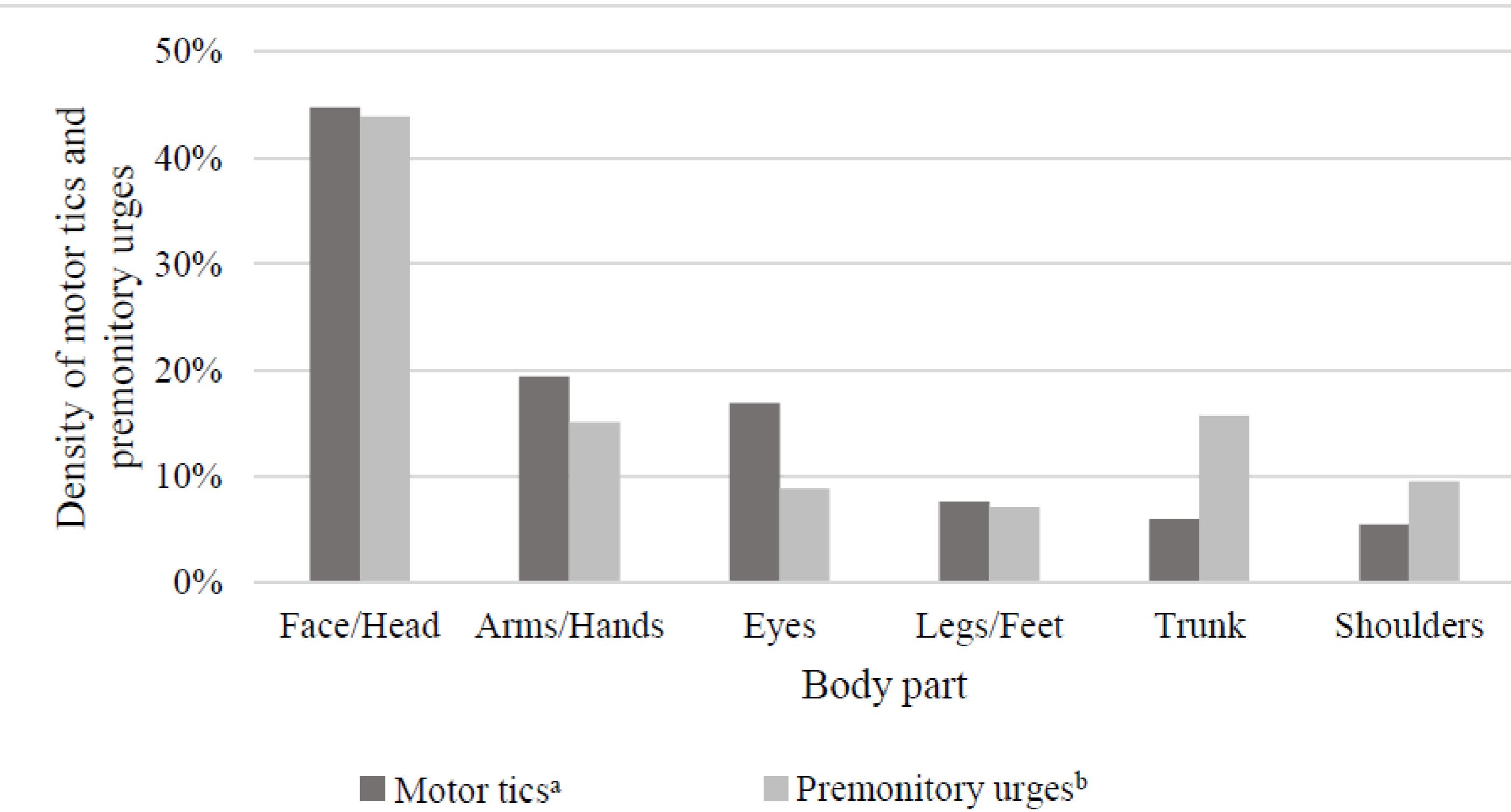


Fig 2: Density of all motor tics and preceding premonitory urges (PU) by body part.

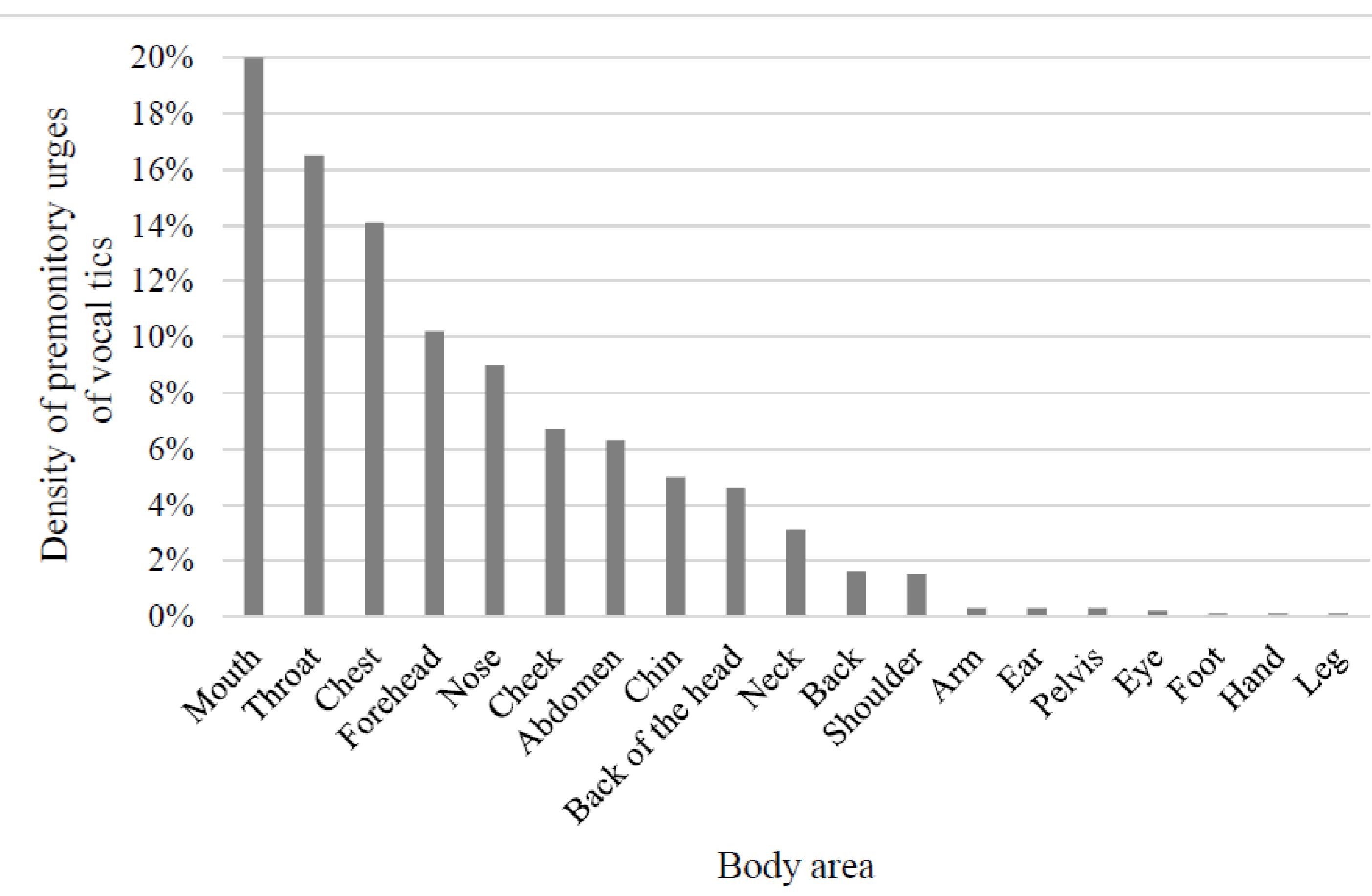


Fig 3: Density of premonitory urge (PU) of all 20 vocal tics investigated.

### Conclusions

- PUs are a core symptom of tic disorders and correspond to the tic location
- Future treatment strategies should focus on improvement of PUs in addition to tic reduction

### Literature

- Leckman JF, Walker DE, Cohen DJ. Premonitory urges in Tourette's syndrome. Am J Psychiatry 1993;150:98-102