

Instructions to Administer the DQ5 Scale

Aim: To assess the problem of anterior drooling and to ultimately evaluate effects of treatment, a combination of measures is recommended focusing on (1) severity and frequency of drooling and (2) impact of drooling on the child and the family. Severity of drooling can be assessed via a 5-min standardized observation resulting in a Drooling Quotient.

Below, detailed instructions on the administration of the DQ5 Scale, are given.

Setting and Condition

The observations for the DQ5 Scale must be performed under standardized conditions:

1. (At least) one hour after mealtime
2. While the child is sitting
3. The mouth is empty and clean before the start of the observation and saliva is wiped off the chin

Drooling is observed during two trials of 5 minutes. In the first trial, the child performs an activity in a sitting position (e.g., interaction/singing/playing), and in the second trial, the child is in rest (listening to a story or watching television).

Definitions

Drooling is defined as a drip of new saliva present on the lip margin or a string of saliva dropping from the mouth or chin area.

What is NEW saliva?

1. Saliva that runs over the lower lip line
2. A string of saliva that becomes thicker and longer

Calculation

During each trial of 5 minutes, the presence (score 1) or absence (score 0) of NEW saliva has to be determined every interval of 15 seconds.

The DQ5 score is expressed as a percentage of observed drooling episodes (intervals with new saliva) and the total number of intervals (0=no new saliva, 100=100% of the intervals have new saliva).

Formula

$$\frac{\text{Total amount of intervals with new saliva}}{\text{Total number of intervals}(=20)} \times 100 =$$

DQ5 Activity

	Observation interval 15 Sec	Score 1 or 0
1	0.00-0.15	
2	0.15-0.30	
3	0.30-0.45	
4	0.45-1.00	
5	1.00-1.15	
6	1.15-1.30	
7	1.30-1.45	
8	1.45-2.00	
9	2.00-2.15	
10	2.15-2.30	
11	2.30-2.45	
12	2.45-3.00	
13	3.00-3.15	
14	3.15-3.30	
15	3.30-3.45	
16	3.45-4.00	
17	4.00-4.15	
18	4.15-4.30	
19	4.30-4.45	
20	4.45-5.00	

DQ5 Rest

	Observation interval 15 Sec	Score 1 or 0
1	0.00-0.15	
2	0.15-0.30	
3	0.30-0.45	
4	0.45-1.00	
5	1.00-1.15	
6	1.15-1.30	
7	1.30-1.45	
8	1.45-2.00	
9	2.00-2.15	
10	2.15-2.30	
11	2.30-2.45	
12	2.45-3.00	
13	3.00-3.15	
14	3.15-3.30	
15	3.30-3.45	
16	3.45-4.00	
17	4.00-4.15	
18	4.15-4.30	
19	4.30-4.45	
20	4.45-5.00	

Total Score = $\frac{\text{Total amount of intervals with new saliva} \times 100}{20} =$

20

Drooling Quotient	1st Trial during Activity	2nd Trial during Rest	Average

Reference: 1. van Hulst K, Lindeboom R, van der Burg J, Jongerius P. Accurate assessment of drooling severity with the 5-minute drooling quotient in children with developmental disabilities. *Developmental medicine and child neurology.* 2012;54(12):1121-6.