Minimum SD Floor

How EQA-Darts keeps the SDI meaningful when a group's spread is very small

Why a floor is needed

Your SDI is (your result − group mean) divided by the group SD. When the labs in a group happen to report almost identical results, their SD becomes tiny, and an ordinary difference of a fraction of a percent produces a huge SDI that does not reflect real performance. A **minimum SD floor** sets a smallest SD that may be used for each test, so a difference is judged against what is realistic for that test.

How it works

Floor SD = floor % × group mean. **SD used** = the larger of the group's own (robust) SD and the floor SD. When the floor is used, the report marks that SD with an asterisk (*) and the note *Minimum SD applied: the SD was raised to the programme minimum*. The same floor % applies to the All Methods, Method and Peer groups of a test. A floor never lowers an SD, and it does not change a group mean.

How the floors were set

For each test, the CV % (SD divided by mean) was calculated for every All, Method and Peer group with **10 or more labs** in rounds 2601 to 2610 (superseded runs excluded). The floor is the **10th percentile** of those CVs, rounded to the nearest 0.1%. This means that the tightest tenth of groups is raised to the floor, while the other nine tenths are untouched. These are judgement parameters of the programme, not values from a standard.

Rules

- A test needs at least **15** groups with 10 or more labs before it has a floor. A new test has no floor until it reaches that number.
- Floors are reviewed **once a year, at the end of the cycle**, and are **frozen for the whole cycle**. A report issued is never recalculated when floors change.
- The first cycle that uses floors is **2027**, starting with the January round.
- Floors do not change the TEa. The %Dev/TEa column of your report always shows your real deviation against the allowable error.

Floors by test (percent of the group mean)

Test	Floor %	Groups with 10+ labs	Test	Floor %	Groups with 10+ labs
Albumin	2.1	40	Iron	2.6	28
ALP	5.3	37	LDH	4.2	29
ALT	3.6	44	LDL-C	8.3	27
Amylase	3.7	20	Lipase	6.3	20
AST	3.5	41	Magnesium	2.7	33
Calcium	1.7	50	Phosphate	2.1	39
Chloride	1.4	28	Potassium	1.6	49
Cholesterol	3.1	40	Sodium	1.4	50
CK	3.8	32	Total bilirubin	3.8	52
Creatinine	3.5	55	TIBC	3.1	19
Direct bilirubin	6.3	36	Total protein	2.4	40
GGT	2.8	33	Triglyceride	3.9	22
Glucose	2.4	60	Urea	3.1	50
HDL-C	4.1	30	Uric acid	2.3	31

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