

TECHNICAL NOTE

Understanding FIM Efficiency in AROC Reports

What is FIM efficiency?

FIM efficiency represents the rate of functional improvement during a rehabilitation episode. It reflects how quickly functional gains are achieved and is reported as points per week.

At the episode level, FIM efficiency is calculated as:

$$\text{FIM change} \div \text{length of stay (LOS)} \times 7$$

Length of stay is recorded in days, so multiplying by seven expresses the rate of improvement **per week**.

For example, if a patient improves by 20 FIM points over a 14-day stay, the FIM efficiency is:

$$20 \div 14 \times 7 = 10 \text{ points per week}$$

In AROC reporting, episode-level FIM efficiencies are then used to calculate FIM efficiency values for groups of patients.

What do we mean by “benchmarks”?

In AROC reports, FIM efficiency is often presented alongside benchmark values (sometimes referred to as expected values).

These benchmark values represent the **mean FIM efficiency** observed across all episodes within a reference group. Groups may include:

- AN-SNAP class
 - impairment group
 - national
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Approaches to calculating the “mean” FIM efficiency

Because FIM efficiency is a **ratio (FIM change ÷ LOS)**, when summarising efficiency across a group of episodes, there are two potential calculation approaches.

Method 1: Ratio of means

This approach divides the mean FIM change for a group of episodes by the mean LOS for the same group. This produces an **overall** rate of improvement for the group.

Method 2: Mean of individual efficiencies

This approach first calculates FIM efficiency for each individual episode and then takes the mean of those episode-level efficiencies.

In practice:

- Ratio of means weights results according to LOS
 - Mean of individual efficiencies weights patients' results equally
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Why AROC reports the mean of individual efficiencies

Following a review of AROC outputs, we have standardised reporting to use the mean of individual episode-level FIM efficiencies when calculating group-level FIM efficiency (calculation method 2). This represents a more patient-centred interpretation of rehabilitation outcomes, and allows calculation of 95% confidence intervals for reported values.

What services may observe in the updated reports

As AROC has standardised the method used across all reporting outputs, some services may notice small changes in reported FIM efficiency benchmark values or casemix-adjusted FIM efficiency results. These differences reflect the consistent application of the calculation method. The underlying episode data and FIM scores have not changed.