

Which methodology should be used to evaluate adherence to topical treatment?

Adherence to medication can be defined as “the process by which patients take their medications as prescribed”. Adherence to topical treatment has been less studied in comparison with systemic therapeutic regimens and is poorly understood. In topical treatments, unique factors that influence adherence can be distinguished like the difficulty to specify the dose needed to cover the affected areas, the correct dose application and the cosmetic acceptability of the medicines. High-quality research on this area is essential to outline a strategy to increase medication adherence and clinical outcomes. The different methods available for the evaluation of the medication adherence to topical treatment include the prescription record review, constant observation of the patients, interviews, questionnaires, diaries, electronic monitoring devices (MEMS) and medication weight. For a more comprehensive understanding of this issue, a systematic review of the methodologies for topical treatment adherence evaluation in psoriasis was undertaken. Twenty one studies were selected from the literature which used six different adherence methodologies (Fig. 1).

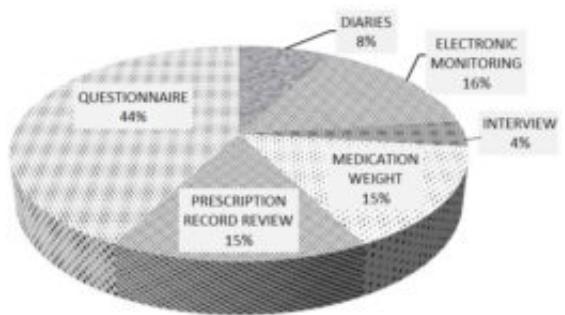


Fig. 1. Frequency of studies according to the methodology for medication adherence evaluation

Merely three studies used multiple adherence measurement methods. The most used method was questionnaire (44%) which was also associated with higher variability of the adherence results. One possible explanation is the lack of a validated questionnaire designed specifically for the evaluation of adherence to topical treatment. Only one method (medication weight) takes into consideration the applied dose. However, the estimation of the expected weight is complex, which renders this method, as used presently, less effective. We recommend using two or more evaluation methods, including a self-report method (for the evaluation of the frequency of administration and for the report of factors responsible for non-adherence) and a method that measures the applied dose. An improvement of the methodologies, such as the development of a device to accurately measure the dose, easily adapted to the current topical medicines packages, and the development and validation of a questionnaire for the measurement of adherence to topical treatment is an urgent need. When evaluating adherence by medication weight it is recommended

to calculate of the expected weight taking into account the type of pharmaceutical dosage form. Reported studies regarding medication weight determination are based on methods developed for creams and ointments, but other pharmaceutical dosage forms are currently used in clinical practice. The data collected in this review will be useful to support the improvement of medication adherence studies which in turn are essential for the establishment of strategies to enhance adherence to treatment. Guidance for the development of novel topical pharmaceutical formulations can be also achieved.

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