

73 Adherence to therapeutic in outpatients: Literature Review

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Introduction: Non-adherence to therapeutic is a widespread problem that contributes to the worsening of chronic diseases and to increase the expenditure on health care [1–3].

Objective: To present a review of the literature on the subject “Adherence to therapy” in outpatients.

Methods: A search was carried out in the *Medline* database and the combinations of words *Medication*, *Adherence* and *Outpatients* were used for the period from 2010 to 2017. including only articles that adopted the *Morisky Medication Adherence Scale* (MMAS) to measure adherence to medication and studies developed in hospital context. In addition, articles with non-conventional therapies were excluded, namely those that resorted to the use of medicinal plants. Information was collected on the place of the study, period, type of study, sample, pathology, adherence to therapy in terms of rate or score (mean) and factors identified as being associated with non-adherence to therapy.

Results: The search retrieved 461 publications and 44 were included in the analysis. The included studies are from Europe, Asia, Africa and America. Most of the studies were observational (84.1%). The remaining studies were interventional studies (15.9%). There were, also, 4 multi-center studies. In most studies, the *Morisky* scale was used with 8 item and only 31.8% used the shorter scale with 4 items. The sample sizes ranged from 34 to 2595 chronic patients and were mostly non-probabilistic (convenience) (75%). The most common pathologies were: diabetes, hypertension, diabetic retinopathy and hypercholesterolemia (34.1%); psychiatric diseases (25%), cardiovascular diseases (18.2%), among others. Taking into account the variable “adherence to therapeutic”, 84.5% of the studies used a dichotomous variable. The others determined the score (mean with associated standard deviation). In general, therapeutic adherence was low. Considering the adherence rates, the lowest were recorded in the treatment of hypercholesterolemia (7.4%) and the highest was recorded in the treatment of hypertension in patients with apnea (83%). It should be noted that the cut-off point did not remain the same in all studies. The factors most commonly referred to as being associated with non-adherence were age, forgetfulness, lack of social support, the complexity of intake and stopping medication when the patient feels better.

Conclusion: Interventional studies show significant improvements in adherence, comparing the situation before and after the intervention. Therefore, it is a priority to implement measures that improve adherence to therapy.

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Further sources of information/References

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74 Beyond co-occurrence-based ADR detection from Social Media

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Introduction: Detecting adverse drug reactions (ADRs) is an important task that has direct implications for the use of that drug for patients, pharmaceutical companies, health organisations and regulators. A promising approach for detecting ADRs is to use social media. A high level of correlation between a drug name and an ADR can be regarded as an indication of a potential ADR associated with that drug. Although numerous association measures have been proposed in the signal detection community for identifying ADRs, these measures tend to ignore causality. **Aim:** Our aim was to develop a causality measure that can detect an adverse reaction caused by a drug rather than merely being a correlated signal.

Methods: We represented the relationship between a drug and an ADR using a set of automatically extracted lexical patterns. We proposed a novel signal detection problem where given a social media post T that contains a drug D and an ADR R , we would like to determine whether R is related to D , or otherwise. We then learn real-valued weights for the extracted lexical patterns that indicate their reliability for expressing an ADR of a given drug.

Results: We obtained an ADR detection accuracy of 74% on a large-scale manually annotated dataset of tweets, covering a standard set of drugs and ADRs. Moreover, intuitive lexical patterns that describe possibilities of the occurrence of an ADR were captured by the proposed method.

Conclusions: To the best of our knowledge, ours is the first causality-sensitive approach for detecting ADRs from social media. Our results show that the proposed method significantly outperforms several competitive baselines and a bag-of-words classifier. Moreover, both midfix as well as prefix information extracted from social media posts provide useful information for the classifier.

76 Comparative Safety of Targeted Therapies for mCRC Treatment Between Young and Elderly Patients: a Study Using Vigibase

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