

# ALTERNATIVE VIEWPOINTS

## Types of Pharmacist Interventions Intended to Prevent and Solve Negative Outcomes Associated with Medication

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After reading the article published by Dr. Hoth and her colleagues,<sup>1</sup> we consider it very important to make some comments concerning their proposal of taxonomy to classify clinical pharmacy interventions.

Since 1999, the Dader Program of pharmacotherapy follow-up (PTF) has provided a simple documentation system designed to supply the key information about the process and results of PTF.<sup>2–4</sup> Pharmacist intervention (PI) intends to prevent or solve negative outcomes associated with medication (NOM).<sup>5</sup> Intervention form (IF) is the record used by the pharmacists registered into the Dader program, in order to communicate the interventions carried out with each patient.<sup>4</sup> The Delivery and record of IF have given rise to an extensive database; which is currently made up of 15,708 records and therefore represents an important source of investigation.

In 2005, we published a study providing a classification of the different types of pharmacist interventions that can be carried out to prevent or resolve a NOM.<sup>6</sup> We analyzed the IF recorded in the year 2002, obtaining a list of 9 types of PI (Table 1). This list presents some differences with respect to the one proposed by Dr. Hoth and her colleagues, namely:

- The options “start alternative therapy”, “change route”, and “change dosage form” were grouped as: *replace one drug*, which includes change in the drug substance,

excipients, administration route or dosage form.

- The option “change dosage strength” was assumed as an adjustment of the quantity of drug being administered right away, that is, to change the dose.
- The options: “provide patient education” and “enhance compliance” should be considered as 3 specific responses, so that they included any educational intervention by the pharmacist: *Educate in the use of the drug, modify behaviors towards the pharmacotherapy and educate about non-pharmacological measures.*
- The option “recommendation for therapeutic/disease monitoring” was not included in the list of *pharmacist interventions*, since this recommendation does not match an action that is intended to directly prevent or resolve a NOM.

Finally, both our list and Dr. Hoth’s list about the different types of PI are neither exhaustive nor exclusive and therefore they cannot be considered as a classification.

### References

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**Table 1. Comparison between list of pharmacist interventions and list of specific responses.**

| Category                                 | Pharmacist Interventions <sup>6</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Specific Responses <sup>1</sup>                                                                                 |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| To intervene on the quantity of the drug | To change the dose: Adjustment of the quantity of drug being administered right away<br>To change the dosing: Change of frequency and/or duration of treatment<br>To change the administration schedule (redistribution of the quantity): Change of the scheme in which the doses of drug are distributed for one day.                                                                                                                                                                                                                                                                                                                                                        | Change dose<br>Change dosage strength<br>Change duration of treatment<br>Change schedule                        |
| To intervene on pharmacological strategy | To replace a drug: Replacement of any drugs among those used by the patient by others with different composition or of different pharmaceutical form or administration route.<br>To add a drug: Addition of a new drug that was not in use by the patient.<br>To withdraw a drug: Abandon of the administration of a specific drug(s) among those used by the patient.                                                                                                                                                                                                                                                                                                        | Start alternative therapy.<br>Change dosage form<br>Change route.<br>Start medication<br>Discontinue medication |
| Intervene on the patient's education     | Change of behavior towards the pharmacotherapy. (Reduce the voluntary non-compliance):<br>Emphasis on the importance of patient's adherence to the treatment.<br>Educate in the use of the drug (To reduce the involuntary non-compliance): Education about instructions and warnings for the correct use and administration of the drug.<br>Educate about non-pharmacological measures: Education of the patient about all hygienic and dietetic measures that can help to reach the therapeutic objectives.<br>Actions such as requesting a laboratory test to get more information, or monitor any parameter, should not be considered as genuine pharmacist interventions | Enhance compliance<br>Provide patient education<br>Recommendation for therapeutic/disease state monitoring      |

with Medication (NOM). *Ars Pharm* 2007;48:5–17.

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### Author's Reply

Dr. Angela Hoth declined the opportunity to reply.