

Medication Adherence in Children Mervat Alsous

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Most of clinical research studies are focused on the adult population with relatively few studies carried out in children due to ethical issues and the practical difficulties in conducting research studies in this patient group [1]. Safe use of medicine is, however, an important issue especially in children, due to inappropriate dosing regimens that may lead to severe toxicity and death. On the other not taking the medication may lead to failure of therapy.

Adherence is complex issue and multifactorial especially in children with chronic diseases. The World Health Organization (WHO) in 2003 established the definition of adherence as *"the extent to which a person's behaviour-taking medication, following a diet, and/or executing lifestyle changes corresponds with agreed recommendations from a healthcare provider"* [2].

Non-adherence differs from patient to patient, from drug to drug and even from one disease to another and becomes significant whenever it leads to a change in the intended therapeutic effect. Both Parents and children play an important role in adherence to medication and it is recommended to check adherence from both parties. At young age parents are responsible for giving the medication to their children and hence parental beliefs, knowledge and attitude may affect giving the medication to their children with the correct dose and time. At Older age children/adolescent may take the responsibility of taking the medication and they may be not aware enough about consequences of non-adherence to medication. On the other hand assessing medication adherence is another complex issue. Using self-report (including the use of questionnaires) is the most commonly used method to assess adherence in clinical practice [3-5]. However, this approach can be susceptible to misrepresentation and may overestimate a patient's adherence [4] due to social desirability

bias, i.e., reporting to the researchers or clinicians "what they want to hear" [3,4,6-8].

Medical records measure the quantity of medication prescribed, dispensing records measure the amount of medication dispensed, electronic device measures the opening of the container, while pill counts measure the amount of medication removed from the container. Pharmacological markers and blood levels monitoring give an indication of when and how much medication the patient has ingested and self-report measures the patient's recall of what they have taken. All of these parameters do not necessarily exactly reflect what the patient has taken and therefore may be considered as measures of variables indicative of adherence rather than absolute measures of medication use [3,9].

In brief, measuring adherence is very challenging in chronic diseases; there is no gold standard test to assess adherence to oral medication and therefore multi-method approaches are needed to get a true adherence estimate over a period of time [3,10,11].

References

- 1 Klassen T, Hartling L, Craig JC, Offringa M (2008) Children are not just small adults: The urgent need for high-quality trial evidence in children. *PLoS Med* 5: e172.
- 2 Sabate E (2003) Adherence to long-term therapies: evidence for action. World Health Organization.
- 3 Osterberg L, Blaschke T (2005) Adherence to medication. *N Engl J Med* 353: 487-497.
- 4 Butz AM (2006) Evidence-based practice: What is the evidence for medication adherence in children? *J Pediatr Health Care* 20: 338-341.
- 5 Garfield S, Clifford S, Eliasson L, Barber N, Willson A (2011) Suitability of measures of self-reported medication adherence for routine clinical use: A systematic review. *BMC Med Res Methodol* 11: 149.
- 6 Coutts J, Gibson N, Paton J (1992) Measuring compliance with inhaled medication in asthma. *Arch Dis Child* 67: 332.
- 7 Bender Wamboldt FS, O'Connor SL, Rand C, Szeffler S, Milgrom H, et al. (2000) Measurement of children's asthma medication adherence by self-report, mother report, canister weight, and doser CT. *Ann Allergy Asthma Immunol* 85: 416-421.
- 8 Riekert KA, Rand CS (2002) Electronic monitoring of medication adherence: When is high-tech best? *J Clin Psychol Med Settings* 9: 25-34.
- 9 Alcoba M, Cuevas MJ, Perez-Simon MR, Mostaza JL, Ortega L, et al. (2003) Assessment of adherence to triple antiretroviral treatment including indinavir: role of the determination of plasma levels of indinavir. *J Acquire Immune Def Syndrome* 33: 253-258.
- 10 Greenley RN, Kunz JH, Walter J, Hommel KA (2013) Practical strategies for enhancing adherence to treatment regimen in inflammatory bowel disease. *Inflamm Bowel Dis* 19: 1534-1545.
- 11 Shah NM, Hawwa AF, Millership JS, Collier PS, Ho P, et al. (2013) Adherence to antiepileptic medicines in children-A multiple-methods assessment involving dried blood spot sampling. *Epilepsia* 54: 1020-1027.