Medicine adherence

What is medicine adherence?

Medicine adherence (also known as ‘patient adherence’ or ‘compliance’) is how well patients follow doctors’ instructions about the timing, frequency, and dosage when taking a medicine.

Patients and doctors must agree on a treatment plan. Adherence describes how well the patient follows the plan.

Patients are described as being adherent if they:

- Take their prescription to the pharmacy and collect their medicine(s).
- Self-administer the medicine(s) in line with instructions from their doctor and the package leaflet(s). This means that they take the medicine(s) correctly, at the right time, and in the right dose.
- Continue to take the full treatment course unless directed otherwise by their doctor.

Non-adherent patients may, for instance:

- Fail to take the prescription to the pharmacy or pick up the medicine(s).
- Not take the medicine(s) according to the instructions from their doctor or the package leaflet(s).
- Not finish the full treatment course.

Why is medicine adherence important?

Poor medicine adherence can reduce the potential clinical benefits of treatment and can lead to poor health outcomes for

the individual patient. This, in turn, can have a negative impact on the cost-effectiveness of medicines. Non-adherence has public health implications and can lead to direct and indirect costs to society and the economy.

The direct economic costs of non-adherence include:

- Unnecessary visits to the doctor.
- Hospital, emergency room, and nursing home admissions.
- Additional diagnostic testing.

The indirect economic costs of non-adherence include:

- Lost patient earnings.
- Lost patient productivity.

Moreover, poor adherence can also have a negative effect on the epidemiology of diseases which goes well beyond the negative impact for an individual patient and may have a major impact on the whole health system. For example a consequence of poor adherence to an antibiotic treatment may be the development of resistant strains of bacteria and consequently increased infection rates and spread of a disease. The links between poor adherence and resistance development have been clearly demonstrated in chronic infections, such as tuberculosis (http://www.jhasim.com/files/articlefiles/pdf/ASM_6_7C_652-658_R1.pdf).

What are the reasons for non-adherence?

There are two kinds of reasons for non-adherence:

- Unintentional – reasons that are outside the control of the patient.
- Intentional – when patients make active decisions not to take or to stop their treatment.

Unintentional non-adherence

Reasons for unintentional non-adherence include:

- Patients forgetting to take the medicine as scheduled.
- Patients unable to afford the medicine.
- Shortage in the supply of the medicine.

Intentional non-adherence

Reasons for intentional non-adherence include:

- Patients having a poor understanding of the disease and/or treatment.
- Patients' beliefs.
- Patients feeling that they don't need the treatment (for example because they feel better).
- Patients' fear of side effects.

Key factors for non-adherence

The main factors include:

- Side effects of the medicine.
- Lack of perceived need for the medicine.
- Concerns due to lack of information about the medicine or misinformation.
- Perceived lack of efficacy of the medicine.
- Cost of the medicine.

Other factors reported to have an impact on adherence include:

- Coping skills.
- Trust in and communication with the treating doctor.
- A need to have a sense of control of the situation.
- Patient involvement in treatment decisions.
- Beliefs about personal susceptibility to the disease.
- Understanding about the seriousness of the disease.
- Depression.
- Social support.

- Social situation, e.g. being homeless.

Dispelling myths about adherence

Myth 1: Non-adherence is a feature of the disease

Poor adherence is problematic in both chronic (long-term) and short-term diseases. Non-adherence is *not* linked to the type of disease.

Myth 2: Forgetfulness is the primary reason for poor adherence

Forgetfulness causes occasional and random slips in medicine adherence. Long-term adherence is the result of a decision-making process and an evaluation by the patient of their beliefs and experiences of the treatment (1).

Myth 3: Healthcare providers give patients enough information about medicines, ensuring adherence

Studies have shown that healthcare providers are inconsistent in their communications about prescription medicines (2). Patients want information about the medicines that are prescribed to them and find it frustrating when there is not enough information provided to them (3).

Myth 4: Healthcare providers and patients routinely discuss adherence

Healthcare providers assume that their patients are adherent. In reality, however, patients do not always communicate their adherence intentions to their healthcare providers (4).

Conclusions

Medicine adherence depends on both, patients and healthcare providers working together to ensure that a patient:

- **Knows how** to take the medicine,

- Is thoroughly **informed** by their doctor,
- **Wants** to take the medicine,
- **Is able** to take the medicine,
- **Is involved** in decision-making, **and**
- Feels **able to understand** the medicine they have been prescribed.

Further resources

- European Patients Forum. Retrieved 8 July,2021 from http://www.eu-patient.eu/globalassets/policy/adherence-compliance-concordance/adherence–joint-briefing-paper.pdf
- http://www.jhasim.com/files/articlefiles/pdf/ASM_6_7C_652-658_R1.pdf

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adverse effects of medication do patients want from physicians? Arch Intern Med. 2001;161:706–713.
4. Lapane KL, Dube CE, Schneider KL, Quilliam BJ. Misperceptions of patients vs providers regarding medication-related communication issues. Am J Manag Care. 2007;13:613–618.