WORLD ADHERENCE DAY 27 MARCH

Supporting adherence in diabetes care

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Non-adherence to pharmacotherapy has been recognised for centuries, since the time of Hippocrates (Jones, 1923). It remains a major global health challenge, with contemporary data demonstrating that 30–50% of people with long-term conditions struggle to take their medications as prescribed (Lee et al, 2022).

Type 2 diabetes is not an exception, and non-adherence in this condition is associated with increased mortality and number of hospital admissions (Khunti et al, 2017). In one study assessing adherence in people with type 2 diabetes, using an objective urine screening test at annual reviews, 28% of participants were found to be not taking their glucose-lowering, antihypertensive and/or lipid-lowering medications as prescribed, with statins having the lowest rate of adherence (Patel et al, 2019).

Discussing adherence with patients

Despite its high prevalence, non-adherence is not frequently discussed in consultations, with only about half of healthcare professionals in primary care and community settings routinely asking patients about adherence (Clyne et al, 2016).

Clinician-reported barriers include concern about damaging trust, discomfort raising the issue and lack of training. Patients may not volunteer difficulties unless prompted, due to concerns over disapproval, embarrassment or because they may not consider partial adherence to be the same as complete non-adherence (Soldan et al, 2024). Consequently, there is a mutual blind spot where non-adherence remains undiscussed and hidden.

Which patients are likely to struggle with adherence?

At a system level, healthcare professionals need to understand their patients in the context of their everyday lives. Adherence is more likely when there is integrated continuity care of care with ease of access, there is a good relationship and communication between people and their healthcare professionals, and people are reviewed holistically (Tammes et al, 2022; Thapa et al, 2023).

At the individual level, non-adherence is more likely in:

- People prescribed multiple medications (especially three or more).
- Those with multiple long-term conditions (multimorbidity).
- Those who are younger (<40 years of age).
- Those who have recently had a change in treatment, especially within the first 3 months and up to 1 year.
- Ethnic minority populations.
- Socially disadvantaged (education attainment and postcode are surrogate markers).
- Those with low health literacy.
  - Health literacy can be assessed by the question "on a scale of 1 to 5, how often do you need to have someone help you when you read instructions, pamphlets, or other written material from your doctor or pharmacy?" Values >2 suggest limited health literacy (Morris et al, 2016; Jordão et al, 2025).

A practical three-step approach to aid discussing and addressing non-adherence

Step 1: Ask

- The opening and most important step is to ask.
- Conversations about adherence should be normalised and non-judgmental.
- Questions such as "Many people find it difficult to take tablets every day. Does that ever happen to you?" can be helpful in starting the conversation.
- However, asking alone is not sufficient, as people may over-report adherence, consciously or unconsciously. Checking is also required.

Step 2: Check

- Checking adherence should not be viewed as a judgement of behaviour, but instead as a diagnostic exercise, in the same way we measure blood glucose and blood pressure.
- This should be explained to the person clearly to ensure trust is maintained.

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Table 1. Methods to assess adherence.

Method	Pros	Cons
Self-report questionnaires (e.g. Medication Adherence Report Scale)	Inexpensive and easy to administer, when patients are in the waiting room or by mail	Subjective and may overestimate adherence
Review of pharmacy records	Objective and relatively easy; available electronically; flags on GP health systems can be added to alert to non-adherence	Reflects historic behaviour
Chemical Adherence Testing (CAT)	Objective; robust; entire panel of 60 cardiovascular medications can be tested; recommended by multiple guidelines for hypertension. Further information available through: https://www.uhleicester.nhs.uk/services/pathology/blood-sciences-chemical-pathology/ or email: uhl-tr.ncatmailbox@nhs.net	Costs £30–40 and reflects short-term adherence; awareness and use outside of hypertension is limited

- Three practical methods to assess adherence are listed in *Table 1* (Gupta et al, 2016; Chan et al, 2020).

Once non-adherence is identified, it should be added onto the patient records to ensure communication between healthcare professionals.

Step 3: Chat

If non-adherence is identified in steps 1–2, it needs to be followed by a non-judgemental conversation.

A simple question the authors use is: "Your records reflect that you are not picking up all of your medications. Taking tablets every day is hard for many people; can we talk about what makes it difficult for you?"

The most common reasons for non-adherence are (Leslie et al, 2019; Nieuwlaat et al, 2014):

- **Forgetfulness:** Improved by reminders (setting an alarm, keeping medication at bedside), asking the support of family member and/or use of a dosette box.
- **Complex regimens:** Improved by the use of combination therapies, simplifying to daily dosing where possible.
- **Asymptomatic nature of conditions:** This requires specific education (e.g. hypertension causes half of all heart attacks and stroke; you get angina only if 70–80% of your arteries are blocked) and direction to patient education websites such as Diabetes UK and Blood Pressure UK.
- **Beliefs about medications and concerns about side effects and use of alternative therapies:** Again, this requires education (e.g. these medications do not accumulate and are out of your system in a day or two) and culturally sensitive discussion (not arguing against traditional therapies, but trying to understand).
- **Medication costs and difficulty in accessing and getting repeat medications:** Can be supported by providing payment cards and increasing prescription duration from 1-month to 3-month regimens.

Once measures and interventions to improve adherence have been provided, adherence needs to be assessed regularly at subsequent visits.

Summary

Non-adherence is every healthcare professional's problem, and every interaction with patients should be seen as an opportunity to assess and improve it, using the steps of Ask, Check and Chat. ■

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