Annual physical health monitoring in patients taking antipsychotics

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1. Aims

• To identify whether patients in a general practice (GP) taking long-term antipsychotics (APs) are having the necessary annual physical health monitoring conducted according to the Maudsley guidelines (1).

• To identify strategies to improve monitoring.

2. Background

Although, APs are extremely beneficial in controlling difficult symptoms, it has been demonstrated that they can have serious side effects. Adequate monitoring of patients is therefore, essential to ensure maximum benefit whilst limiting adverse effects. In a GP surgery in the borough of Wandsworth, serving a population of 4400 patients, it was recognised that one patient on long-term APs had not been adequately monitored, prompting the need of an audit to assess whether this is a common problem. The Maudsley guideline recommendations include annual full blood count (FBC), urea and electrolytes (U&E), lipids, weight, glucose, prolactin and liver function tests (LFT). The importance of the monitoring of these particular parameters are due to the potential complications that any abnormalities may cause; which are outlined below:

- Weight gain
- Dyslipidaemia
- Diabetes
- Hyperprolactinaemia
- Agranulocytosis
- Raised LFTs
- Electrolyte abnormalities
- FBC abnormalities

3. Methods

An EMIS search was conducted in the practice serving a population of 4400, to identify patients taking long-term APs for a minimum duration of 1 year, of which 21 individuals satisfied this inclusion criteria. Their GP consultation notes were then reviewed as well as their clinic letters and Centor consultation letters; however, the sample size is too small to disregard the potential problem in this cohort of patients.

4. Results

A total of 21 patients registered at the GP surgery were identified as being prescribed long term antipsychotics, for a duration of ≥1 year. When compared to the Maudsley guideline recommendations, only 3% of patients had a complete set of annual checks conducted, 81% had incomplete monitoring and 14% had no annual monitoring, as displayed in Figure 1. Figure 2 shows monitoring of each of the parameters. The poorest monitoring was found to be in annual prolactin tests. Conversely, U&E’s, FBC’s and LFTs were the best-monitored groups.

5. Discussion and proposed changes

The initial stages of the audit revealed that annual physical health monitoring of patients taking APs is inadequate, with only 5% having a complete set. The majority of incomplete monitoring was as a result of the absence of prolactin testing.

Although the patient’s notes more closely revealed that one patient had been refusing blood tests, highlighting a potential problem in this cohort of patients. Psychiatry clinic summary letters showed that specialists included reminders of the requirement of annual physical health monitoring in only six patients, with few listing the specific tests. Interestingly, there was no correlation between those with good monitoring and reminders in psychiatry letters; however, the sample size is too small to disregard the usefulness of reminders.

Despite not being part of annual requirements, but no doubt an important risk factor of CVD, smokers were effectively identified and referred for smoking cessation. Similarly, the GP surgery were effective at monitoring blood pressure and giving appropriate treatment when necessary. However, referral and appropriate advice for overweight patients was not seen.

Although prolactin was the least efficiently monitored component, it was noted that unlike the Maudsley guidelines, SIGN guidelines, state that annual prolactin monitoring is not mandatory (7). Instead, it states it is only required if clinically indicated. Furthermore, when recommendation of annual monitoring were monitored in psychiatrist clinic letters, most did not include prolactin as a component to be checked. Discrepancies in guidelines may be contributing to these low numbers. Subsequently, a psychiatrist from local hospital was contacted for clarification of common practice and trust guidelines. This revealed that baseline tests are conducted and repeated at 3-6 months in all patients taking APs with the exception of those taking aripiprazole and quetiapine. This is not repeated if previously demonstrated to be within normal ranges. It would be more reflective of the GP surgery if the audit was repeated adjusting for local trust guidelines followed by psychiatrists within the trust.

Conversely, blood pressure and smoking history, both recommended as components of the annual monitoring in the SIGN guidelines, are not recommended in the Maudsley guidelines. Research has shown that hypertension, smoking, hyperlipidaemia and diabetes mellitus are the most significant risk factors contributing to coronary heart disease mortality, of which smoking and diabetes mellitus are extremely prevalent in schizophrenics (8).

Barriers to physical health monitoring in patients taking APs may include unclear designated roles between GPs and psychiatrists regarding where monitoring is expected to take place especially that input from psychiatrists varies between practices. Similarly, the GP surgery were effective at monitoring blood pressure and giving appropriate treatment when necessary. However, patients with mental health conditions are often worse at communicating physical needs (9) therefore, it is essential that there is a system in place to ensure patients are not lost between the GP and specialist.

Future improvements

Initial steps of the audit cycle highlighted the need of improvements in annual monitoring of patients taking APs, as well as the need of clarity in the necessary annual monitoring components. The next stage of the audit cycle, identification of areas of change, implementation of change and re-evaluation have not been conducted due to time restraints. However, a number of changes targeting patients as well as staff, including GP’s nurses and receptionists have been proposed.

Proposed changes

Staff education on guidelines and current levels of monitoring.

Patient education on importance of each of the parameters.

Patient information leaflets given by the GP or nurse during routine appointments and by reception staff with collection of repeat prescriptions. Leaflets can outline the recommended monitoring components, advice regarding healthy lifestyle and common symptoms experienced when any of the parameters are abnormal.

Computer systems, such as EMIS, can be used to generate alerts when annual monitoring is due. An allocated receptionist can contact patients directly or send an automated SMS message requesting them to book an appointment with the nurse.

An allocated nurse can perform blood tests, weight measurement and smoking status. The nurse should be trained and have an awareness of appropriate services to direct patients to if required, such as smoking cessation services or a dietitian.

Poster displays in GP reception allowing both patient and relative education.

6. Conclusions

In summary, the initial stages of this audit revealed that the audit standard was not met. The majority of incomplete monitoring was due to the absence of prolactin testing which may be due to discrepancies in guidelines. The audit has shown the need of involvement of a team within the practice to implement changes to improve annual health monitoring in patients taking long-term antipsychotics. Following implementation of change, the audit will be repeated after 12 months. Moreover, audits in the future can extend this by exploring monitoring required before the annual checks such as baseline and three-monthly checks.

References


