

Quality Improvement Project for the Physical Health Monitoring of Patients in Grangewood Hospital Prescribed Antipsychotic Medication.

Introduction & Aims

It has been shown that patients with severe mental illnesses are almost twice as likely to die from cardiovascular disease compared to the general population and antipsychotic medications are recognised as a risk factor metabolic syndrome. There has been recent focus on metabolic syndrome as a cause of this increased mortality and NICE have issued guidance as to how these patients should be monitored. (CG178).

Due to this the aim of our project was to ensure that 100% of patients admitted into the crisis service who are prescribed antipsychotic medication will have up to date physical health measurements documented to monitor for metabolic side effects

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Objectives

All patients should be monitored as per the NICE guidelines. This includes the documentation of past medical history for risk factors associated with metabolic syndrome, including cardiovascular disease, diabetes, tobacco use, blood pressure, body mass index and waist circumference. Also all patients should have appropriate initial blood monitoring carried out including; Urea and Electrolytes, Liver Function Tests, Serum Lipid Profile, a HbA1C and a serum prolactin. Finally all patients should have an up to date ECG recorded in their notes.

Methodology

Following a directive from the department of health a project group was set up and a baseline measurement of the inpatients was carried out to see how we were adhering with the guidelines. The results indicated that measures needed to be implemented to meet the criteria as set out by NICE. Following this measures such as staff teaching and ward based training were implemented, as part of a service improvement project to highlight the need for the physical monitoring, the investigations and measurements required for monitoring. Audit and re-audit with regular presentations to staff provided feedback to the compliance with these measures. This was facilitated by the inclusion of this into the clinical microsystems work (a quality improvement forum) that was on-going within Grangewood, allowing improvements to be made and maintained using PDSA cycles. The initial staff training was followed by the use of aid memoirs within the treatment rooms, new admission protocols were formulated regarding the routine investigations carried out on admitted patients, there were changes made to the Integrated Care Pathway (the hospital admission document) as well as the requisition of new equipment for the ward and formal arrangements for the induction of new staff. Once these were in place and the improvements were sustained as evidenced by the use of run charts monitoring was relaxed. However, nine months later an audit showed that the improvements had not been sustained. We decided to refocus our efforts using the clinical microsystems and quality improvement methodology including further PDSA cycles to improve our compliance with the NICE guidelines. The initial measure was to re-educate staff, and further discussion in the clinical microsystems meetings.

Results

Following each intervention the outcome measures improved as evidenced in run charts. Changes to the admission profile bloods resulted in significant improvements to total compliance. The prolactin bloods were more challenging to improve as there were several different factors which were problematic in the completion of this measure. Changes to the lab ordering process, difficulties with the transport of samples to the appropriate lab for analysis as well as delays in processing samples affected these results. As each of these issues were identified through a PDSA approach, the completion of these tests subsequently improved. There was an observed decline in recording of the medical histories at the times of staff change over and this led to remedial teaching with the Junior Doctors as well as changes to and the addition of an aid memoir to the integrated care pathway to prompt their questioning. Following the break in frequent monitoring of the compliance with the objectives there was a noted dip in several of the criteria, including the medical history as well as the recording of the blood lipids. A further assessment of these results within the clinical microsystems framework led to further changes to the integrated care pathway and further teaching with the admitting staff (Nurses and Doctors) has been organised, with subsequent re-monitoring.

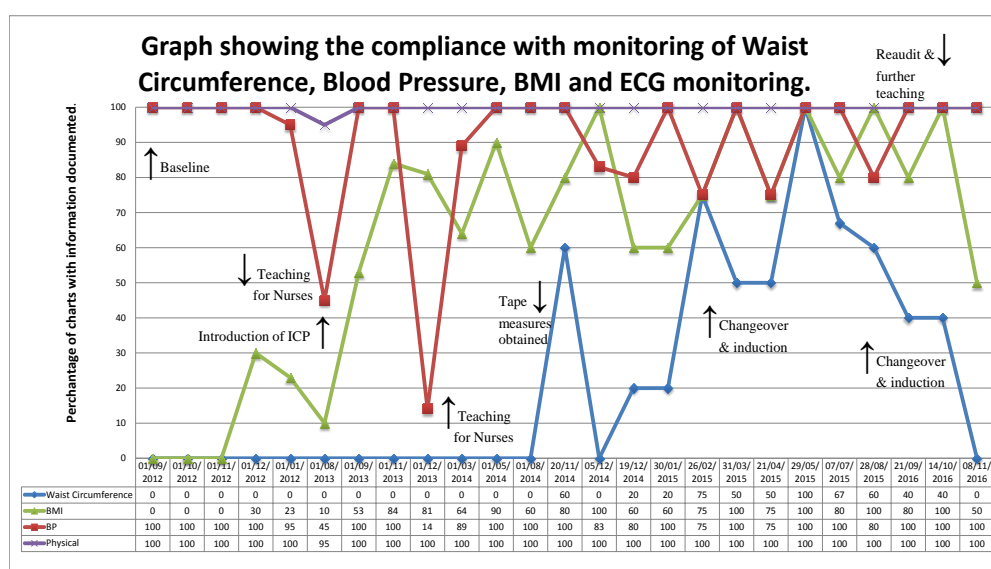


Fig 1

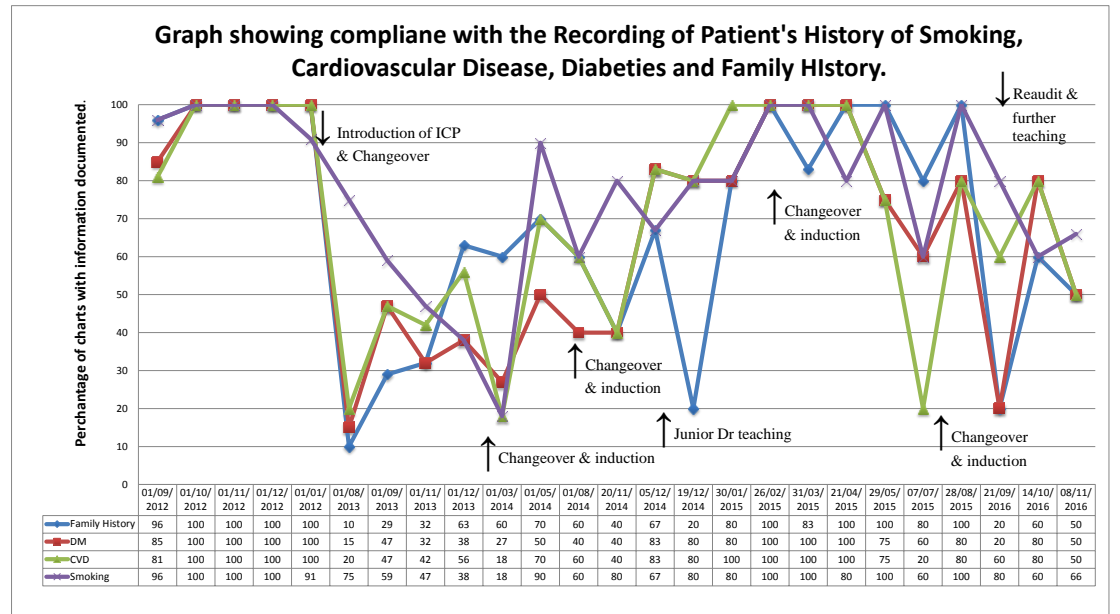


Fig 2

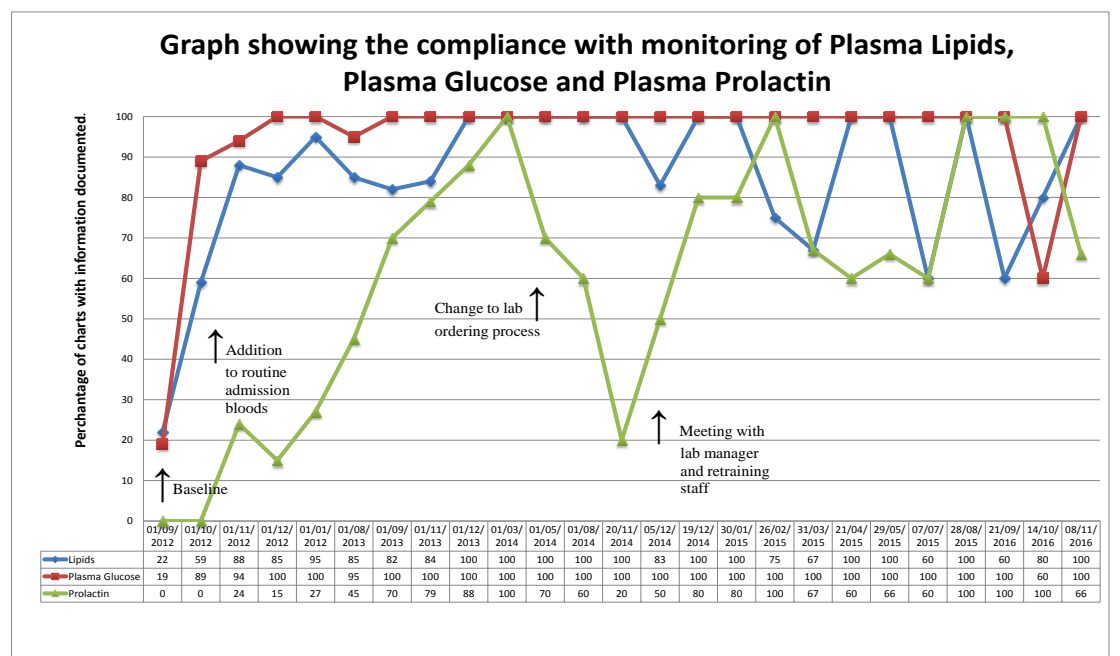


Fig 3

Evidence of Implementation

There are on-going run chats for each of the parameters (see fig 1,2,3) show the on-going compliance with the physical health monitoring of patients on the ward who are prescribed antipsychotic medications. As well as this physical copies of the integrated care pathway are also available on request.

Objectives

There are on-going run chats for each of the parameters as well as the physical copies of the integrated care pathway to show the on-going compliance with the physical health monitoring of patients on the ward who are prescribed antipsychotic medications.

Impact to Patient Care

There have been protocols developed for patients with raised prolactin levels, and abnormal ECG examinations. There have been many patients who have been referred onward to other specialities due to this monitoring, who would have otherwise been overlooked given the monitoring arrangements before this work was commenced. This included both endocrine and cardiac problems which if untreated would have caused an increase in the morbidity of the affected patients.

Conclusion

An on-going PDSA cycle is essential to identifying problems, finding appropriate and effective solutions to the shortcomings within the parameters that are required to be monitored for patients on antipsychotic medication. It has led to a change in the induction programme for the psychiatric medical staff on rotation through the Trust as well as changes to the documentation pathway used for admissions. Changes were also made to the routine admission bloods and ECG recording carried out on all the patients on admission, because a separate piece of work completed in our ward indicated that up to 95% of all the admitted patients were prescribed an antipsychotic medication during their stay in hospital.

References:

- The Maudsley Prescribing Guidelines in Psychiatry 12th Edition
- NICE CG178 Psychosis and schizophrenia in adults: prevention and management
- Harris EC, Barraclough B. Excess mortality of mental disorder. *Br J Psychiatry* 1998;173:11-53.
- Brown S. Excess mortality of schizophrenia. A meta-analysis. *Br J Psychiatry* 1997;171:502-8.