Special feature

e-interview
Prof David Taylor

FFRPS FRPharmS

Inventor of the "Clozapine Test"

By Dr Santosh Mudholkar FRCPsych
Consultant Psychiatrist
Chief Editor of Swasthya

Prof David Taylor

1. **How did you develop an interest in Psychopharmacology?**

   I had depression when I was 18 years old and was given dothiepin. No one can take that drug and not think treatment could be a lot better.

2. **What is your typical "work day"?**

   I don't really have one. I suppose I would sum it up as 'trying to do something useful while being bombarded with emails'. I supervise quite a bit of research, get involved in clinical cases, manage a department and (2 years out of every 3) write the Maudsley Guidelines. And reply to emails..

3. **Can you tell us about your professional journey from psychopharmacology to pharmacogenetics?**

   Pharmacogenetics has always been there - we have known about poor and fast metabolisers for more than 50 years; it is only recently that we have been able to identify the genes responsible. Gradually we learn more and more about genetic determinants of response and toxicity.

4. **Why is there a need to develop pharmacogenetic testing before commencing Clozapine?**

   Because currently the use of clozapine is based on a lot of guesswork. For any individual you do not know their chances of responding, their chances of getting agranulocytosis, or whether or not they have benign ethnic neutropenia. You have only a rough idea of the dose likely to be needed. The test takes away some of this uncertainty.

5. **How accurate is the test in its prediction?**

   The test is in four parts. For response the accuracy is shown by the confidence intervals we give around the estimated chance of response. There are 27 possible genetic combinations, each of which has an estimated chance of response. Some CIs are wide (e.g. 8-51%) some much narrower. For risk of agranulocytosis, the estimated risk is pretty accurate because we are looking for variants that have a high risk of dyscrasia. The risk (usually between 0.3% and 20%) is a very good estimate although we cannot currently identify people with no risk. For BEN, the SNP we look for (rs2814778) is probably the cause of BEN, so we feel this test is more accurate than a haematology assessment. For dose prediction we use a mathematical model to take account for 5 metabolic enzymes. The test for dose is at least as good as current algorithms based on smoking status and gender, and we hope to gather data to show that it is more accurate still.

6. **When will "Clozapine test" be available for patients in NHS in U.K.? Do you have any plans of marketing this test Internationally?**

   It is available now. It's up to the NHS, or at least individual trusts to decide if they use it. The cost is not prohibitive, and it is a once in a lifetime test - it doesn't need to be repeated. It is probably cost-effective because it will help more people get on to clozapine (who will then spend less time in hospital) and referrals to haematologists will be greatly reduced. Yes we have plans to launch overseas.

7. **How should clinicians request this test through their local NHS Trusts?**

   It is freely available from PGT. Clinicians should probably get the all-clear from their budget holder before ordering a test.

Prof David Taylor:
Professor of Psychopharmacology
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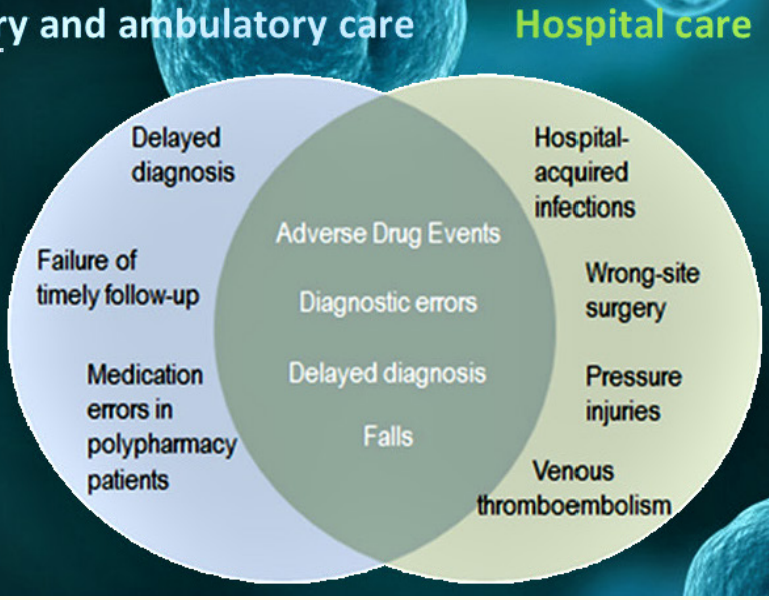
Founder of the "Clozapine Test"

Psychiatric Genetic Testing

Credit for coordinating the interview to: Karen Bayliss at Psychiatric Genetic Testing Ltd?

Improve patient safety by eliminating adverse events in health care settings

It is estimated that every year more than 300,000 patients acquire a healthcare associated infection (HCAI, HAI or nosocominal infection)as a result of care with in the NHS.



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