Long acting anti-psychotic injections
(For Schizophrenia)

First-generation antipsychotic (FGA) long-acting injections were introduced in the 1960s and were designed for chronic schizophrenia patients who refused to take their medication orally or regularly forgot to take their medication. Thus long acting injections help prevent relapse of the condition. Most schizophrenia patients (about 80%) fully recover from the initial episode of illness. Of these, approximately 80% relapse within 5 years. It is estimated that 5 to 10% of people with schizophrenia commit suicide. The first of the second-generation antipsychotic long acting injections (LAI) (risperidone LAI) became available in 2002.

Utilisation rates

The rate of use of Long-acting injections varies greatly from country to country. In countries such as Ireland, UK and Ireland there are higher rates of use with approximately 30% of patients with schizophrenia currently prescribed a LAI. The rate of use in countries such as France and the USA is lower. The use of LAIs has declined in all countries since the 1990s after the introduction of the oral second generation antipsychotics (SGA–orals) such as olanzapine and quetiapine.

According to studies, approximately 40–60% of patients with schizophrenia do not take their medication regularly and in many cases refuse to take it at all. Long-acting injections are generally prescribed when a patient is not taking their oral medication as prescribed. Many decide to use them as they offer the convenience of not taking a tablet every day and in some cases where a tablet did not work.

LAIs require the attendance to a clinic for regular injection every 1–6 weeks. This ensures the medication is given regularly and allows regular review of treatment. Non-compliance is obvious to the healthcare professional when the patient fails to turn up for their injection. This early detection of non-compliance also allows an early opportunity for contact with the patient to discuss with them the reasons for non-compliance (which can include unintentional forgetfulness and disorganisation) and thus plan how this can be prevented in future taking into account the patient's preferences. LAIs do not guarantee the patient will not relapse. Clinical trials show there is a core of 20–25% of patients (which is not reducible) who relapse even when prescribed an LAI.

Long-acting injectable risperidone may be no more effective than oral antipsychotics in unstable schizophrenia

There is a lack of long-term studies comparing the effectiveness of oral medication compared to long-acting injections. However one 2011 study published in the New England Journal of Medicines found that, in high-risk patients with schizophrenia and schizoaffective disorder, long-acting injectable risperidone did not provide great improvements to key outcomes such as psychiatric symptoms, quality of life or functioning when compared with oral antipsychotics. In this study, patients who received long-acting risperidone injection had more side effects including soreness at the injection site, headaches, and movement disorders (such as jerky movements which can occur with all anti-psychotic medication). However, it must be noted that long acting injections are very effective in controlling symptoms in patients who refuse or forget to take oral medication regularly.

Comparing the different LAI formats

The side-effects of LAIs are not any worse in general when compared to oral preparations of the same drug.

First-generation long-acting 'depot' antipsychotic injections First-generation antipsychotic LAIs are commonly called 'depot' injections. Depot refers to the way the drug is deposited and stored in the muscle before being absorbed. Manufacturers formulated these products in an oil base, which takes time to move out of the muscle into the bloodstream. The oils used include sesame and coconut and differ between products. The injections are made deep into the gluteus muscle (buttocks). They can take between 8 to 12 hours to start taking effect and peak effect usually takes from seven to 10 days. These medications take a long time to be eliminated from the body, so various benefits, and indeed side effects, can persist for some time following the last injection.

There is no clear cut division in the use of different FGA-LAIs, but Zuclopenthixol (Clopixol®) may be more suitable for the treatment of agitated or aggressive patients whereas Flupenthixol (Depixol®) can cause over excitement in such patients. The incidence of side effects such as movement disorders is similar for all the FGA-LAIs.

Second-generation long-acting antipsychotic injections Risperidone was the first second generation LAI to be licensed in the UK and Ireland and is still the only one on the market. The drug will not reach a therapeutic level for a few weeks after injection; therefore it is essential that the patient receive alternative antipsychotic medication during the initial period of treatment following the first injection. It is for administered into the gluteus muscle (buttocks). Other second- and third-generation LAIs are in development.

Other Physical illness

Severe mental illness is associated with a higher incidence of physical illness and chronic disease.

The most common physical conditions are:
Cardiovascular disease People with schizophrenia are twice as likely to have some form of cardiovascular disease in comparison with people who do not have schizophrenia.

Diabetes The risk of diabetes in a person with schizophrenia is 14.9 per cent, compared with the 1.2 per cent to 6.3 per cent risk observed in the general population.

Obesity Evidence suggests excess weight gain can be two to three times more prevalent in people with schizophrenia than in the general population. This may be due to high levels of smoking, unhealthy diets and lack of exercise – common lifestyle choices of people with schizophrenia. However, antipsychotic medication can also exacerbate weight gain. This antipsychotic treatment-induced weight gain increases both the risk for hyperglycaemia and type 2 Diabetes as well as the risk for hypertension and cardiovascular disease.

Considerations
Lifestyle factors and personal preference should also be considered when making decisions about which drug is best to prescribe. Thus a patient with existing risk factors for cardiovascular disease should consider injections with a low propensity to cause weight gain. A patient in employment may wish to consider an injection that is less likely to cause sedation.

More detailed information….this is a summary; more detailed information on anti-psychotic injections is available in Whelehans. References available upon request

Disclaimer: This information is a general summary only; please ensure you consult with your healthcare professional before making any changes recommended

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