PHARMACEUTICAL
PRESS
Essential Knowledge

PATIENT CASE STUDY

Managing the metabolic adverse effects of antipsychotics

Guidance to support the multidisciplinary team manage a patient stopping and switching antipsychotics

Guidance for a patient stopping and switching antipsychotic drugs

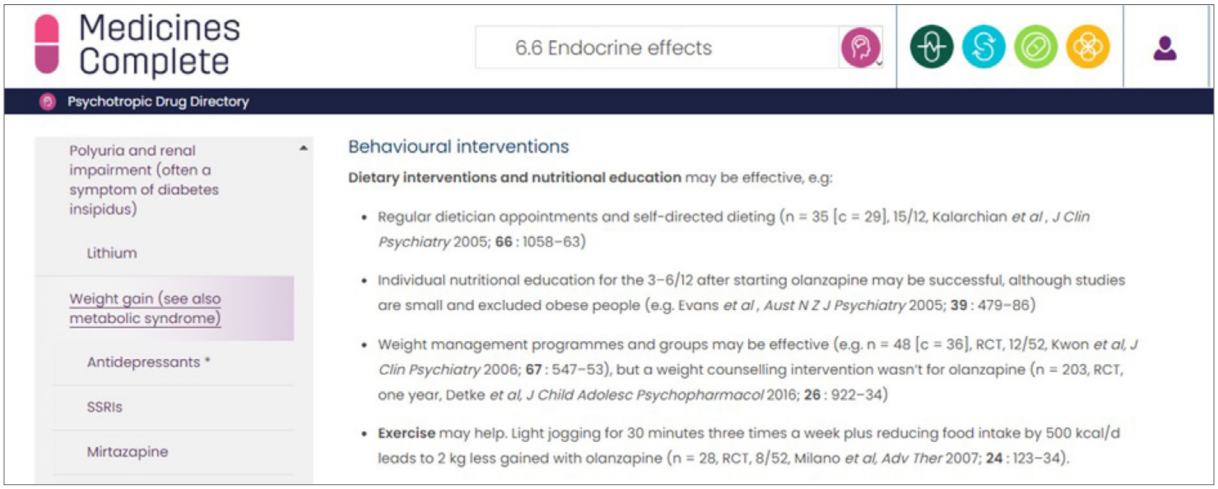
Empowering decision-making in mental health

Tom is a 28-year-old man with a diagnosis of schizophrenia. He has been stabilised on olanzapine 20 mg daily; however, his cholesterol, blood glucose, and weight have increased significantly over the past year.

Weight gain, high blood glucose, and high cholesterol are common side-effects from olanzapine. As a preventative measure, dietary advice has been given to Tom in every follow-up appointment; however, this has proved insufficient for him. Nevertheless, the consultant psychiatrist consults PDD to see if any other behavioural interventions could be tried to help Tom at this stage.

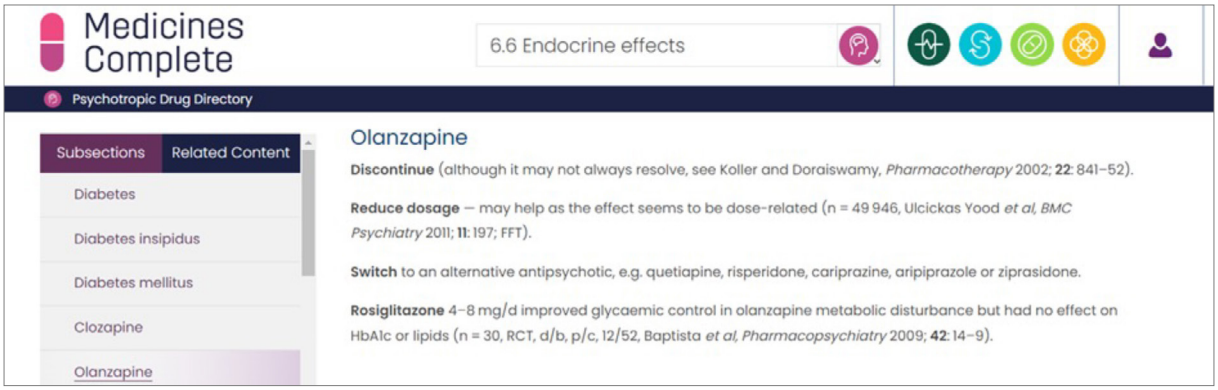
In the **Management of side-effects** section, Psychotropic Drug Directory includes evidence-based management strategies found in published literature to help aid the next course of action for the individual patient. These strategies can range from behavioural to medication interventions such as switching drugs or adjunctive therapies.

The psychiatrist looks at the behavioural interventions for managing weight gain due to antipsychotics in Psychotropic Drug Directory, and decides to refer Tom to attend a regular weight management group.



Tom's attendance at the weight management group has been erratic over the last 8 weeks, and his weight and other metabolic parameters have not improved. Nevertheless, Tom continues well-established on olanzapine, so the psychiatrist consults Psychotropic Drug Directory to see if decreasing the olanzapine dose could be an effective strategy to improve the metabolic side-effects that Tom is experiencing.

The psychiatrist finds in Psychotropic Drug Directory several strategies for managing olanzapine-related hyperglycaemia and weight gain.



Evidence suggests that hyperglycaemia and weight gain are dose-related, therefore the psychiatrist decides to try a lower dose of Olanzapine 15 mg daily.

Four weeks later, Tom's blood glucose has decreased very slightly but he has started to report hearing voices, and claims that his olanzapine is not working as always. Therefore, the psychiatrist increases the olanzapine dose back to 20 mg daily.

The psychiatrist is now considering switching olanzapine to another antipsychotic and rings the pharmacy medicines information department seeking advice about other suitable antipsychotics for Tom, such as one with less risk of metabolic side-effects.

The pharmacist consults Psychotropic Drug Directory to find out about the risk of hyperglycaemia, hypercholesterolemia, and weight gain of other antipsychotics to support the choice of a new antipsychotic for Tom. Psychotropic Drug Directory contains dedicated tables that offer a quick snapshot of the side-effect profile of psychotropic drugs, which can be used to compare drugs and aid prescribing in the individual patient. For example, relevant tables for this case would include table 6.6.1 (Risks of raised glucose), table 6.6.2 (Risks of raised cholesterol), and table 6.6.3 (Relative risk of weight gain and increased BMI).

Table 6.6.1: Risks of raised glucose

Drug	Risk
Clozapine	0.97
Iloperidone	0.73
Cariprazine	0.70
Olanzapine	0.67
Haloperidol	0.59

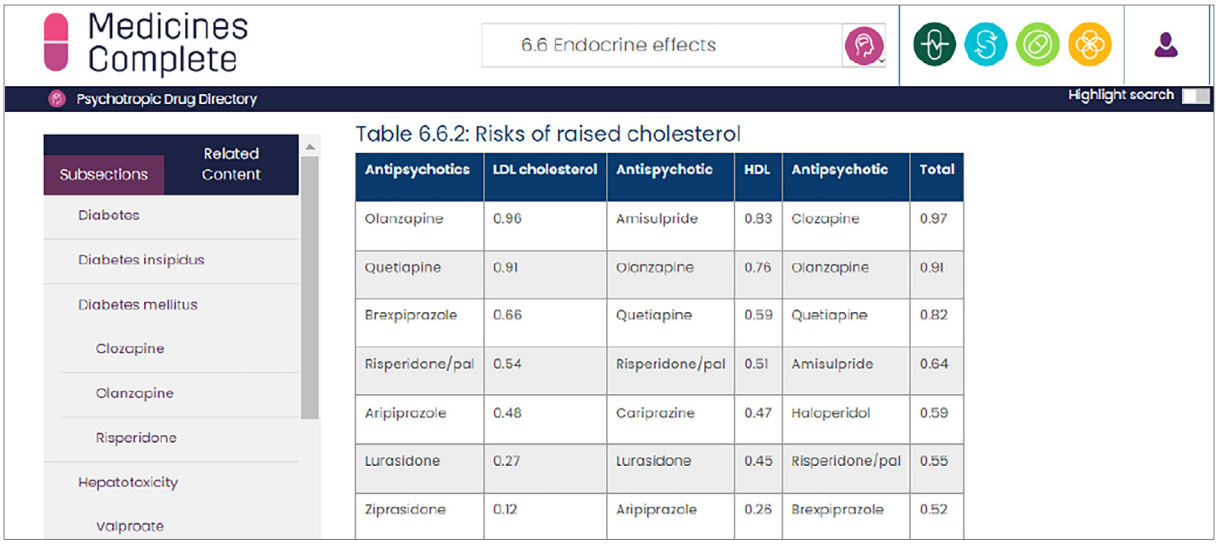


Table 6.6.2: Risks of raised cholesterol

Antipsychotics	LDL cholesterol	Antispychotic	HDL	Antipsychotic	Total
Olanzapine	0.96	Amisulpride	0.83	Clozapine	0.97
Quetiapine	0.91	Olanzapine	0.76	Olanzapine	0.91
Brexpiprazole	0.66	Quetiapine	0.59	Quetiapine	0.82
Risperidone/pal	0.54	Risperidone/pal	0.51	Amisulpride	0.64
Aripiprazole	0.48	Cariprazine	0.47	Haloperidol	0.59
Lurasidone	0.27	Lurasidone	0.45	Risperidone/pal	0.55
Ziprasidone	0.12	Aripiprazole	0.26	Brexpiprazole	0.52

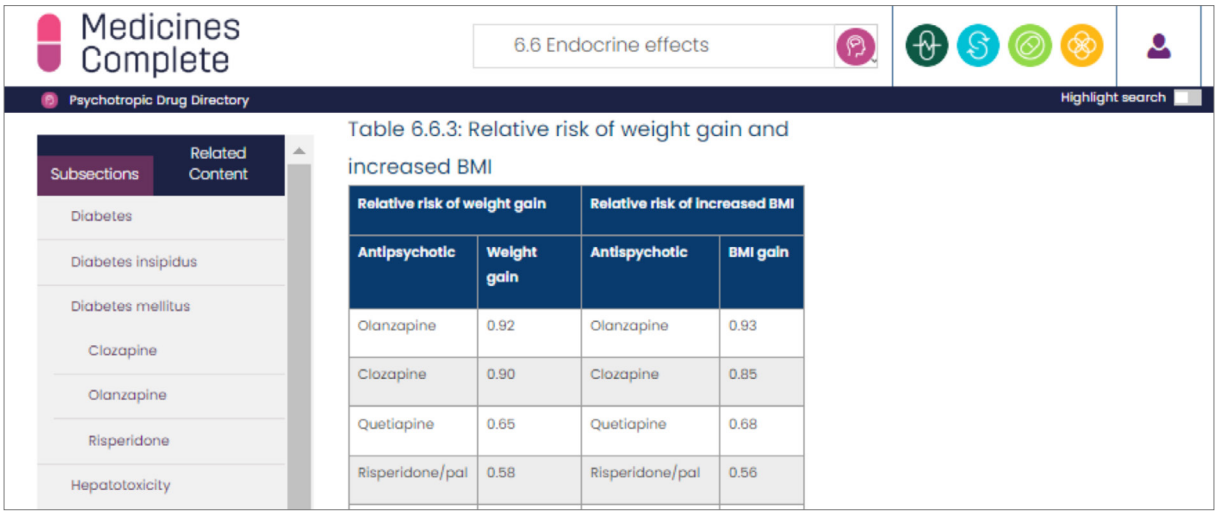
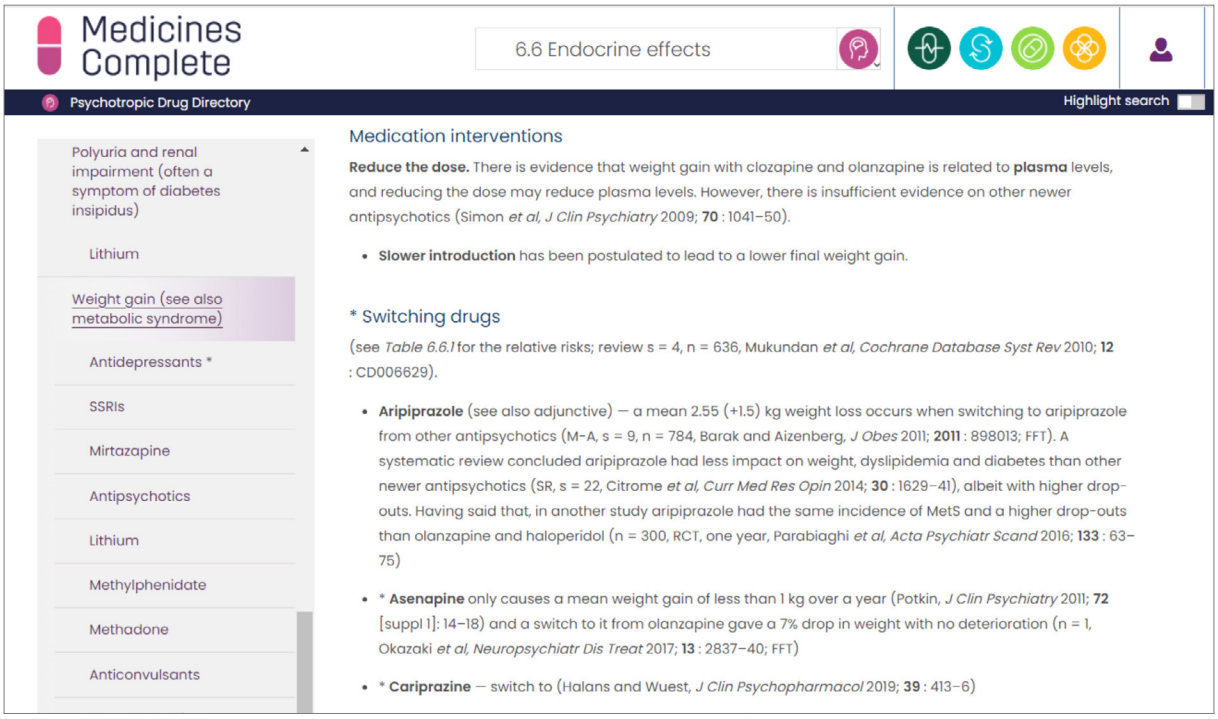
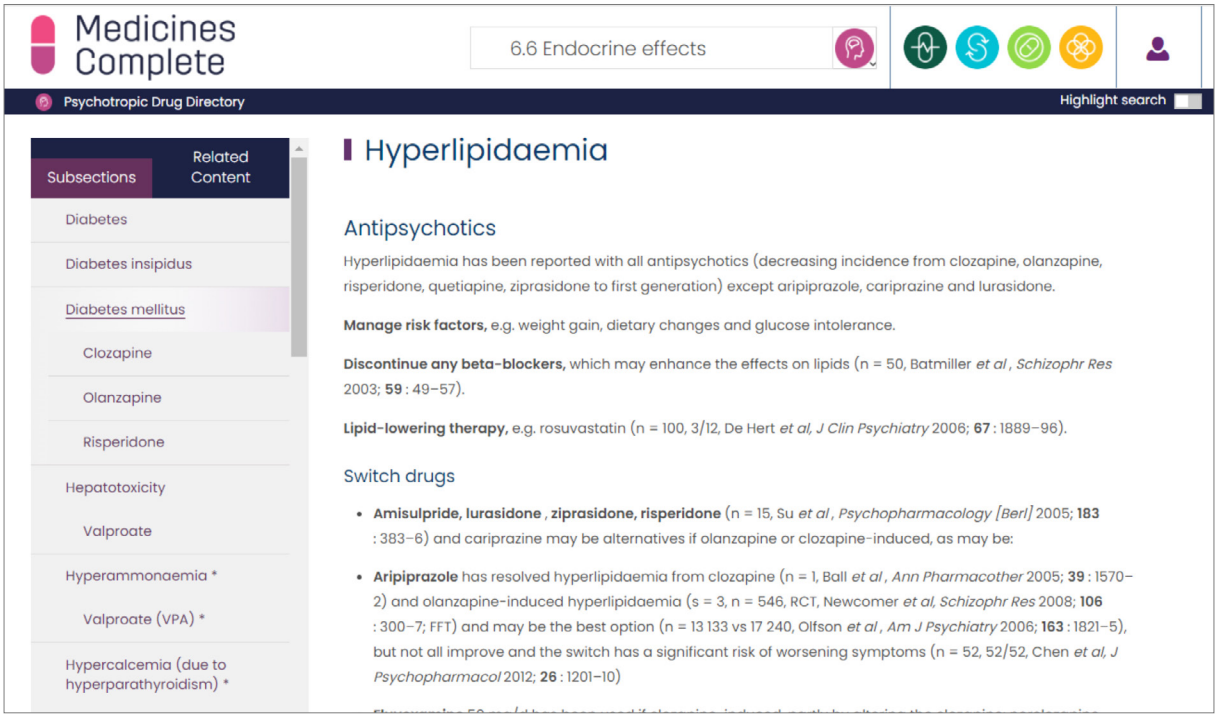


Table 6.6.3: Relative risk of weight gain and increased BMI

Relative risk of weight gain		Relative risk of increased BMI	
Antipsychotic	Weight gain	Antispychotic	BMI gain
Olanzapine	0.92	Olanzapine	0.93
Clozapine	0.90	Clozapine	0.85
Quetiapine	0.65	Quetiapine	0.68
Risperidone/pal	0.58	Risperidone/pal	0.56

Evidence suggests that aripiprazole has less impact on weigh, dyslipidaemia, and diabetes. Hyperlipidaemia seems to be resolved after switching to aripiprazole, and a mean 2.55 Kg (+1.5Kg) weight loss has been seen.

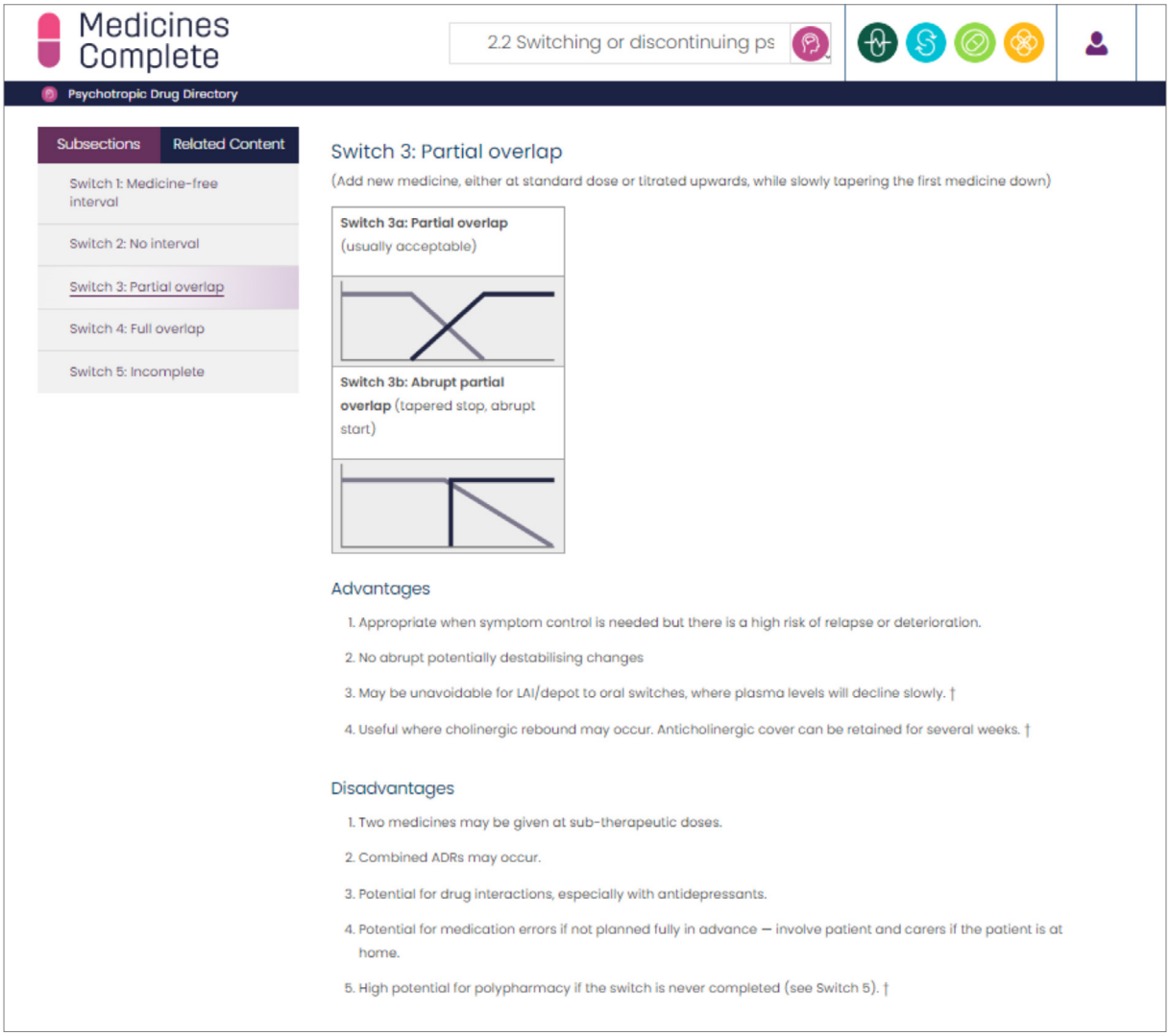




Based on the available information on Psychotropic Drug Directory, the pharmacist recommends aripiprazole to Tom's psychiatrist. To ensure that the switch from olanzapine to aripiprazole is safe and effective, the pharmacists can also find on Psychotropic Drug Directory the latest evidence-based recommendations.

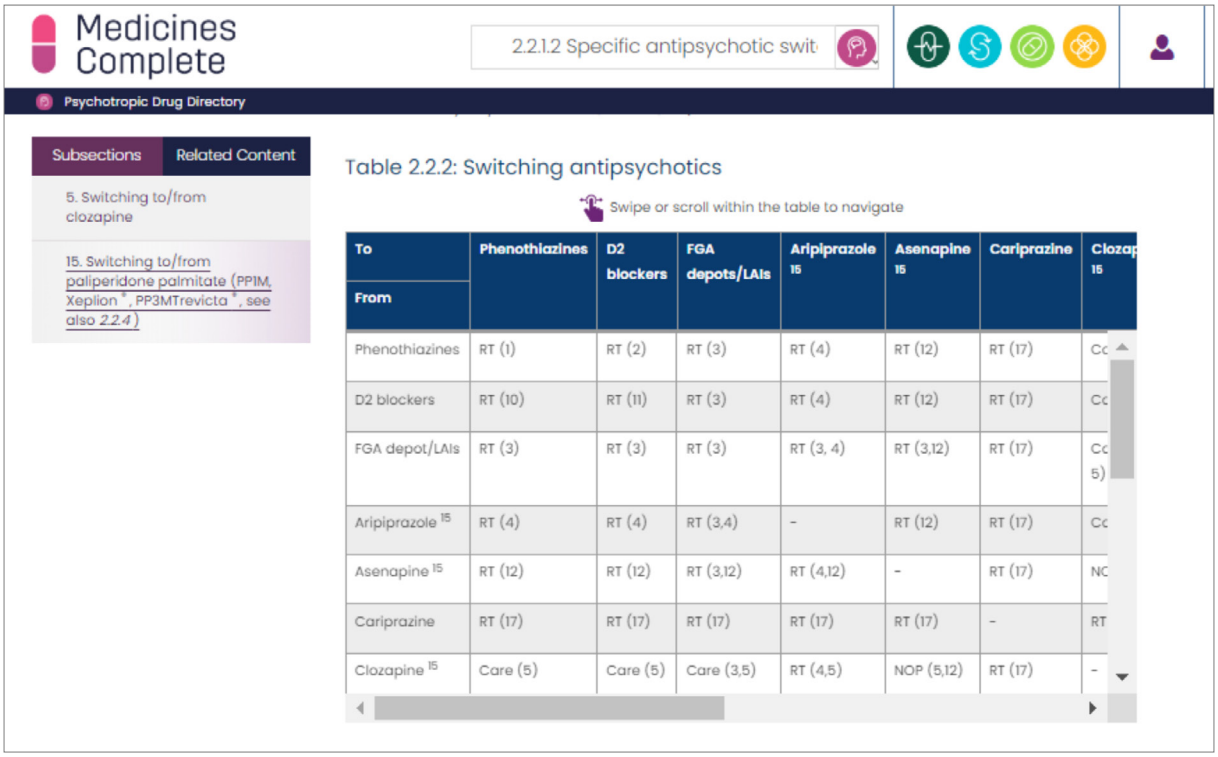
Type of switches

A dedicated section on **Switching or discontinuing psychotropic drugs** contains detailed information about the different switching strategies, their risks, and their rationale.



Specific antipsychotic switches

Evidence-based information about switching to/from specific antipsychotics and other psychotropic drugs is also included in Psychotropic Drug Directory, and the pharmacist specifically looks at the information for switching olanzapine to aripiprazole.



To / From	Phenothiazines	D2 blockers	FGA depots/LAIs	Aripiprazole [15]	Asenapine [15]	Cariprazine	Clozap [15]
Phenothiazines	RT (1)	RT (2)	RT (3)	RT (4)	RT (12)	RT (17)	Cc
D2 blockers	RT (10)	RT (11)	RT (3)	RT (4)	RT (12)	RT (17)	Cc
FGA depot/LAIs	RT (3)	RT (3)	RT (3)	RT (3, 4)	RT (3,12)	RT (17)	Cc 5)
Aripiprazole [15]	RT (4)	RT (4)	RT (3,4)	-	RT (12)	RT (17)	Cc
Asenapine [15]	RT (12)	RT (12)	RT (3,12)	RT (4,12)	-	RT (17)	NC
Cariprazine	RT (17)	RT (17)	RT (17)	RT (17)	RT (17)	-	RT
Clozapine [15]	Care (5)	Care (5)	Care (3,5)	RT (4,5)	NOP (5,12)	RT (17)	-

For switching to aripiprazole, evidence suggests that a long cross-tapering from olanzapine to aripiprazole would be more successful, but that it needs to be flexible and tailored to the individual.

The pharmacist then suggests starting aripiprazole 5 mg daily, increasing the dose weekly by 5mg up to 15 mg daily, then decrease olanzapine by 5 mg over the following four weeks.

Tom is then counselled about his new medication and monitored for therapeutic progress and tolerability. After four weeks of treatment with aripiprazole, there is a marked improvement in Tom's metabolic parameters, and his psychotic symptoms are well-controlled.