PHA-7001B Central Nervous System

Schizophrenia

PP has a history of poor mental health and illicit drug use, he suffers from low mood, insomnia and has had previous psychotic episodes. He lives alone in supported accommodation and is on benefits. The community mental health team visit him regularly to give him his antipsychotic depot medication and ensure he takes his oral medication. Without the support from the community mental health team, his condition will deteriorate rapidly requiring urgent hospital admission.

7 days ago by the community mental health team went to his flat to administer his antipsychotic depot medication and could not find PP. They were unable to contact him and reported him missing. PP had been found by the police wandering around the road in the nearby village apparently talking to himself. He stated that 'nothing could hurt him' and that 'he could stop cars if he jumped in front of them', he was taken to the 136 suite by the police.

He was found to be in an agitated state, perplexed and unkempt. The liaison team noticed that PP could not look straight ahead, and the police stated his neck was twisted, looking up to the left for many hours. When asked about the reason for running away, he told the liaison team that 'those people who visit him in his flat have put thoughts into his head' and he was very suspicious.

The psychiatric liaison team felt that a Mental Health Act assessment was necessary. As a result, PP was admitted to a psychiatric ward under Section 3 of the Mental Health Act as a formal patient.

The on-call junior doctor was called to assess PP. His most recent health record revealed that for the past year he had been maintained on **flupentixol decanoate long-acting intramuscular (IM) injection fortnightly** – his last dose, 3 weeks ago had been increased from 100mg to 200mg.

His current prescription also contains oral medication:

- **Venlafaxine extended-release (XL) 300mg bedtime,**
- **Haloperidol 5mg three times each day when required,**
- **Lorazepam 1-2mg three times a day when required**,
- **Zopiclone 15mg at bedtime**.

1) **Complete the following template and identify 9 care interventions**
2) **Formulate a clinical care plan for each care intervention and prioritise your interventions.**

Consider the following:

- **What is the possible diagnosis / differential diagnosis based on his symptoms?**
- **What is the previous medical history / medication history?**
- **Are the medicines prescribed appropriate?**
- **Are there any monitoring parameters you need to consider, baseline and on-going?**

Name: PP	Age: 24 years old	Weight 101Kg	Height 1.6m

Reason for referral to mental health acute ward / signs and symptoms of illness

In here, write your reasons why the patient has been referred to mental health services and the signs and symptoms which led to this diagnosis and differential diagnosis

- Relapse and recurrence of psychosis.
- Positive symptoms of schizophrenia
  - Delusions- belief he can stop traffic
  - Thought insertion- nurses putting thoughts in his head & he was suspicious
- Negative symptoms
  - Unkempt
  - Social isolation- lives alone
  - Depressive symptoms- low mood and poor sleep
- His relapse may have been triggered by him missing his depot injection but was the depot increased because he was becoming unwell?
- Possibly suffering from Dystonia
- Differential diagnosis:
  - Need to perform urine drug screen to rule out drug-induced.
  - Physical health assessment, FBC, ECG, LFTs, TFTs, weight, blood glucose etc., full body MOT to rule out organic cause (infection) and electrolytes disturbances (hyponatremia, hypokalemia, hypercalcemia, or hypomagnesemia).
  - Social/family circumstances to rule out any external stressors or triggers.
  - What is his history, is there anything to suggest a mood disorder/ptsd
  -
  - IM injection is painful and uncomfortable – check patient's preference if it remains the same (i.e. acceptable) or has changed (i.e. hated it).

Past Medical History	
Psychosis, depression, illicit drug user, insomnia	
Drug Allergies	**REACTION**
Penicillin	Skin rash

Family History

- PP is an only child
- Mother alive
- Father passed away from stroke 10 years ago

Social History

- Heavy smoker
- Alcohol 10 units per week

Current Medication

Drug	Indications
Flupentixol decanoate 200mg IM depot injection fortnightly at lunchtime	Symptoms of psychosis, possible previous diagnosis of schizophrenia, confirm in notes but he has missed the last dose of his depot
Venlafaxine XL 300mg tablets at bedtime	Depression, or possibly negative symptoms of schizophrenia
Lorazepam 1-2mg tablets three times daily when required	Found in agitated state and lorazepam would be useful to calm PP & help with agitation
Zopiclone 15mg tablets at bedtime when required	Suffering from poor sleep, look in medical notes to see how long PP has been using it for?
Haloperidol 5mg tablets three times daily when required	Agitation/violent behaviour

	CLINICAL CARE PLAN		
1	**Care intervention**	**Recommended action**	**Ongoing review & monitoring parameters (including frequency of monitoring)**
	PP is experiencing extrapyramidal side effect (EPSE) typically known as DYSTONIA. It is characterised by muscle spasm of the head and neck. When the head is forced sideways it is known as *torticollis*. PP could not look straight ahead and persistently looked up to the left. This may be due to the recent dose increased of the depot plus the addition of haloperidol **(haloperidol can cause marked EPSE c/w flupentixol causing moderate EPSE)**	• Acute dystonic reaction must be treated immediately as the condition is quite painful, distressing and uncomfortable but can be life-threatening if left untreated. • Consider prescribing procyclidine (an anticholinergic) either orally or intramuscularly. IM procyclidine (2.5-5mg TDS PRN) may be preferred if PP is unable to swallow and it acts quicker than oral formulations.	Symptoms observation until PP is completely recovered from the acute dystonic reaction. If no improvement with IM procyclidine after 1-2 days, and it is persistent and severe, refer PP to A&E immediately. Monitor for anticholinergic side effects such as urinary retention, constipation, confusion, dry mouth and blurred vision.

	CLINICAL CARE PLAN (continued)		
2	**Care intervention**	**Recommended action**	**Ongoing review & monitoring parameters (including frequency of monitoring)**

	PP is still suffering from psychotic symptoms while having EPSE from the depot and haloperidol.
	
	Review the prescription for flupentixol IM depot injection.
	
	Also, EPSEs are more common with first-generation antipsychotics than the second-generations. Other risk factors include male gender, younger age, and depot formulation and high doses.
		• **2 options: continue with flupentixol or switch to SGA**
		• Dose reduction would not be the appropriate approach as PP is suffering from psychotic symptoms, continue with 200mg dose.
		• Concern about long-term used of oral procyclidine and need to weigh up the benefits of continuing flupentixol IM depot injection compared with the risk of EPSEs
		• May resolve if discontinue haloperidol- (see later)
		• Consider switching it to a second-generation antipsychotic depot injection, such as risperidone (fortnightly) or paliperidone (monthly), or even aripiprazole depot
		  ○ List recommended doses of above depots
		  ○ If decide to switch to another depot then discuss switching carefully to avoid NMS
		• Discuss risks and benefits of switching antipsychotic treatment with PP and the mental health team.
		• Review depot c/w oral medication. Presume poor adherence to oral but this should be discussed with PP
			If switching to a second-generation antipsychotic:
			• Monitor response to treatment
			• Monitor EPSEs during switching as flupentixol will remain in PP's system for longer while the new antipsychotic is being introduced.
			• Before switching, check ECG, FBC, prolactin and LFTs as baseline. If unremarkable, repeat at 3 months
			
			If not switching to a second-generation antipsychotic:
			• Continue with the higher dose if EPSE symptoms are controlled and haloperidol is discontinued (see later)
			• Monitor symptoms control and EPSEs.
			• Check ECG, FBC, prolactin and LFTs as baseline. If unremarkable, repeat at 3 months.
			• Consider prophylactic oral procyclidine and monitor anticholinergic side effects
			• Monitor medication adherence.
			
			Consider clozapine only if it was felt that PP was suffering from treatment resistant schizophrenia & PP would be adherent to medication as clozapine is oral only.

	CLINICAL CARE PLAN (continued)		
3	**Care intervention**	**Recommended action**	**Ongoing review & monitoring parameters (including frequency of monitoring)**
	Venlafaxine is prescribed for night time administration. Venlafaxine can cause insomnia, a common side effect.	Consider prescribing venlafaxine XL 300mg for morning administration.	Sleep pattern. In the long term check how effective venlafaxine is at treating PP's depressive symptoms. Check compliance.

	CLINICAL CARE PLAN (continued)		
4	**Care intervention**	**Recommended action**	**Ongoing review & monitoring parameters (including frequency of monitoring)**
	Zopiclone dosage is above BNF limits for insomnia. This appears to be a repeat prescription. Usage probably >4 weeks since initiation.	Consider reducing the dose of zopiclone to the maximum 7.5mg/day. There is no evidence suggesting higher doses are more effective. Insomnia may resolve if venlafaxine taken in the morning. Insomnia could be secondary to psychosis and/or depression, if treated appropriately, insomnia should subside. If a hypnotic is necessary, consider switching to an antihistamine such as promethazine as is less addictive and has low risk of dependence. A benzodiazepine (such as nitrazepam and temazepam) may be considered but high risk of dependence and is very addictive. Consider general sleep hygiene advice such as: • Avoid excessive caffeine, alcohol and nicotine • Do not stay in bed for prolonged periods if not asleep • Avoid daytime naps • A warm bath or gentle exercise may help • Mak bed and bedroom comfortable • Regular routine • Diet high in carbohydrates (nu not a big meal within 2 hours) • Avoid backlit screens 2 hour prior to bed (inhibit blue light)	Monitor and aim for an improvement in sleep pattern.

	CLINICAL CARE PLAN (continued)		
5	**Care intervention**	**Recommended action**	**Ongoing review & monitoring parameters (including frequency of monitoring)**
	Increased risk of QTc interval prolongation and/or ventricular arrhythmias (e.g. Torsade de Pointes) Risk factors: • Venlafaxine • Flupentixol • Antipsychotic polypharmacy • Antipsychotic at high doses • Venlafaxine + antipsychotics	Generally, it would be advisable to switch venlafaxine to another antidepressant that does not affect the QTc interval such as sertraline, mirtazapine and duloxetine. However, it may not be appropriate to switch if PP has been stabilised on it and that his ECG results (past and present) were unremarkable. This is because switching to other antidepressants may destabilise PP's depression. It may be advisable to minimise his risk by minimising the number of antipsychotics prescribed. **For instance, stop the haloperidol PRN (see later)** If switching antidepressant is necessary, check drug history to establish which antidepressants PP had tried in the past and their treatment outcome.	Monitor ECG when PP is an in-patient on the ward even if he is asymptomatic. Also monitor plasma electrolytes to detect abnormalities. Advise PP to report signs and symptoms of QTc prolongation such as heart palpitations, fainting and seizures.

	CLINICAL CARE PLAN (continued)		
6	**Care intervention**	**Recommended action**	**Ongoing review & monitoring parameters (including frequency of monitoring)**
	Review the prescription for haloperidol PRN. Reasons: • Haloperidol – high risk of EPSEs. • EPSEs risk increases when co-prescribed with flupentixol. • PP is suffering acute dystonic reactions • QTc risk increased with venlafaxine	Consider stopping haloperidol to prevent EPSEs and antipsychotic polypharmacy. If an antipsychotic PRN is necessary, consider using low dose quetiapine (25-50mg) short term as it has a lower risk of EPSEs. QTc is dose dependent so a low dose will minimise risk.	Monitor EPSEs, ECT, NMS and prolactin.

	CLINICAL CARE PLAN (continued)		
7	**Care intervention**	**Recommended action**	**Ongoing review & monitoring parameters (including frequency of monitoring)**
	Increased risk of anticholinergic side effects from: • Procyclidine (if prescribed) Flupentixol	Short-term use of procyclidine for acute symptoms may be necessary. Stop it when symptoms improve, and/or if antipsychotic treatment changed. Avoid long-term use if possible Antipsychotics with less anticholinergic side effects may be considered such as risperidone, paliperidone and aripiprazole. They are also available in depot formulation	Monitor for anticholinergic side effects such as urinary retention, constipation, confusion, dry mouth and blurred vision.

	CLINICAL CARE PLAN (continued)		
8	**Care intervention**	**Recommended action**	**Ongoing review & monitoring parameters (including frequency of monitoring)**
	Lorazepam 1-2 tds prn	This is obviously useful now while PP is in an acute phase of his illness. How much is PP taking? **Check with the patient** Review lorazepam dose as maximum BNF is 4mg orally in 24 hours. Prescribe 1mg four times daily PRN instead.	Monitor for signs of tolerance and dependence. Advise PP not to take it regularly and only when anxious/agitated and not stop abruptly, should wean off slowly, to avoid discontinuation symptoms.

	CLINICAL CARE PLAN (continued)		
9	**Care intervention**	**Recommended action**	**Ongoing review & monitoring parameters (including frequency of monitoring)**

	Non-pharmacological interventions-
	
	Remember as a mental health trust we try to ensure when patients are discharged they are going to suitable living/ accommodation. We have social workers etc who can facilitate this process.
		• DVLA should be notified as PP is suffering from an acute illness and this is PP's responsibility as it could affect the insurance policy
		• Smoking cessation – NRT suggestions- when PP is well
		• Psychosocial interventions may help reduce stress and help manage symptoms
		• Psychotherapy such as 'Living with voices' to help cope with hearing voices and learn how to manage them
		• Weight monitoring as PP is over 100kg in weight.
		
		• Discuss alcohol use with PP- respiratory depressant and will not help with low mood
		• Presume negative for illicit drugs? It says he is an illicit drug user
			• May need social worker involvement:
			  ○ Social support
			  ○ Financial support
			  ○ Employment support
			• Monitor engagement with the community mental health team and psychologist
			• Sign post for smoking cessation support such as GP or local smoking cessation service
			• Sign post to MIND (mental health charity) for support
			
			Monitor response to treatment and tolerability every 3 to 6 months in the community as well as adherence to medication. Frequency of monitoring may vary depending on what drug treatment PP is on or switched to.
			
			Urine screening for illicit drugs, give advice regarding the detrimental effects of illicit drug use on mental health.