

Bipolar Disorder Management Physician Order: New Initiatives at the Mental Hospital of Ministry of Health in Saudi Arabia

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Abstract

The national psychiatric pharmacy program is new system founded in the Kingdom of Saudi Arabia. The program of mental health care services at Ministry of health. The new program started with several initiatives projects including evidence named medicine guidelines. The new project of bipolar disorder management physician order was one the outcome of the program. The guidelines development through task force committee by Pharmacy department at the most prominent mental hospital, in Riyadh region in Saudi Arabia. The project prevents antipsychotic-related problems and avoids the unnecessary economic burden on the healthcare system. The new initiative's project is new in Saudi Arabia, Gulf and Middle East counties.

Key words: Bipolar Disorder, Management, Physician Order, Ministry of Health, Saudi Arabia.

INTRODUCTION

The psychiatric healthcare services are expanding over the past several years in Kingdom of Saudi Arabia.^[1] That has included the numbers of hospitals, number of beds and all supportive services including psychiatric pharmacy practice.^[1-3] The pharmacy department of the Mental hospital Ministry of Health in Riyadh region implemented several programs and services. It included patient education program, drug information services, and evidence-based medicine guidelines. Recently the mental hospital implemented new initiatives project of bipolar disorder management physician order. Several studies showed the benefit of psychiatric management guidelines.^[4-6] It improves patient outcome and prevents drug-related errors. The psychiatric mental health care system missed those guidelines in Saudi Arabia. Also, it seldom to find this project at Gulf or Middle East counties. The goal of the mini-review to explore the bipolar disorder treatment physician order at a Mental hospital in Kingdom of Saudi Arabia.

Bipolar disorder Therapy order in Saudi Arabia

The bipolar disorder management physician order form consisted of patient

demographic data, the type or stage of disease, the first line of treatment, the dose and duration of therapy, the second line of choice if existed. The comorbid disease with primary disease and appropriate choice for each combined disease. The prescribed data and clinical pharmacist data as explored in the physician order form. The form can quickly convert to the electronic format in the computer pharmacy system as explored in appendix 1.

SWOT Analysis

The SWOT analysis used for the project. The strong points of the project were a clinical pathway of psychiatric management, educational tool for new staff; it fit the accreditation and requirements of national organizations of accreditation health care institutions, it is control of hospital formulary and prevents miss-use if medications. The forms not covered all psychiatric disease, it is not contained all antipsychotic medications, it was not an electronic format. The opportunities points were part of accreditation requirements, and threads points were it not followed by healthcare staff, the new updating of the therapeutic guidelines.

Implementations steps of Bipolar disorder management physician Oder

It is evidence-based setting up psychiatric therapeutic guidelines at biggest hospital a mental hospital at Ministry of Health in Kingdom of Saudi Arabia. The guidelines based on evidence based on American psychiatric society recommendations. It designed through pharmacy task force team and headed by the author. The team consisted of head of pharmacy, drug information pharmacist, four clinical pharmacist at acute and ambulatory care services, and medications safety office and inpatient and outpatient supervisor. The team divided into several three groups. Each group made different therapeutic management guidelines of common disease depression, schizophrenia and bipolar dossiers. The first draft finished by the teams then covered as physician order format by the first author. The therapeutic physician order revised by the three groups. The team made several discussion and final agreement. The head of pharmacy submit to the pharmacy and therapeutic for final approval. The psychiatric therapeutic physician order approved by the committee after several discussion and meeting. The guidelines implemented through several education session with hospital staff. The manual physician order sent to information technology to convert as electronic physicians order entry.

CONCLUSION

The new initiative's project of bipolar disorder management physician order had several advantages for patients and healthcare services in Saudi Arabia

and first services in Gulf and Middle East counties.

ACKNOWLEDGMENT

None.

CONFLICT OF INTEREST

None.

ABBREVIATIONS


None.

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Appendix 1

 <p style="text-align: center;">Al-Amal Medical Complex Pharmaceutical Care Department Riyadh Region Physician Order Form</p> <p style="text-align: center; font-size: small;">(Please fill all applicable information and stick it on patient profile, and forward the copy to the Pharmacy Department within 24 hrs)</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">FILE NO.:</td> <td style="width: 10%; border: 1px solid black; text-align: center;"> </td> <td style="width: 10%; border: 1px solid black; text-align: center;"> </td> <td style="width: 10%; border: 1px solid black; text-align: center;"> </td> <td style="width: 10%; border: 1px solid black; text-align: center;"> </td> <td style="width: 10%; border: 1px solid black; text-align: center;"> </td> <td style="width: 10%; border: 1px solid black; text-align: center;"> </td> <td style="width: 10%; border: 1px solid black; text-align: center;"> </td> </tr> <tr> <td>NAME:</td> <td colspan="7" style="border-bottom: 1px solid black;"> </td> </tr> <tr> <td>AGE:</td> <td style="border: 1px solid black; text-align: center;"> </td> <td>SEX:</td> <td style="border: 1px solid black; text-align: center;"> </td> <td style="border: 1px solid black; text-align: center;"> </td> <td colspan="3"> </td> </tr> <tr> <td>NATIONALITY:</td> <td colspan="7" style="border-bottom: 1px solid black;"> </td> </tr> <tr> <td>WEIGHT (ACTUAL/ESTIMATED):</td> <td colspan="5" style="border-bottom: 1px solid black;"> </td> <td colspan="2">KG</td> </tr> <tr> <td>HIGHT:</td> <td colspan="5" style="border-bottom: 1px solid black;"> </td> <td colspan="2">CM</td> </tr> <tr> <td>ALLEGRY:</td> <td colspan="7" style="border-bottom: 1px solid black;"> </td> </tr> <tr> <td>DIAGNOSIS:</td> <td colspan="7" style="border-bottom: 1px solid black;"> </td> </tr> <tr> <td>WARD:</td> <td colspan="3" style="border-bottom: 1px solid black;"> </td> <td colspan="4">BED</td> </tr> <tr> <td>CONSULTANT IN CHARGE:</td> <td colspan="7" style="border-bottom: 1px solid black;"> </td> </tr> </table>	FILE NO.:								NAME:								AGE:		SEX:						NATIONALITY:								WEIGHT (ACTUAL/ESTIMATED):						KG		HIGHT:						CM		ALLEGRY:								DIAGNOSIS:								WARD:				BED				CONSULTANT IN CHARGE:							
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Adult Bipolar disorder management(1)(2)(3)**Diagnosis:**

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Treatment of acute mania or hypomania:

Condition	Dose	Therapy	Comments(1)(4)(5)
1stChoice	1.....	Lithium	(usual therapeutic serum 1-1.5mmol/L). -IR: 600 mg 3 times a day -XL : 1800 mg in 2-3 divided doses /day Maximum dose: 1800mg /day OR
	2.....	Na Valproate	IR:750 mg orally per day in divided doses; increase as quickly as possible to achieve desired clinical effect; target trough plasma level was 50 to 125 mcg/mL (347 to 867 mcmol/L) in studies; Maximum dose: 60 mg/kg/day XL: 25 mg/kg/day orally once daily; increase as quickly as possible to achieve desired clinical effect; target trough plasma level range was 85 to 125 mcg/mL (590 to 867 mcmol/l) in studies; Maximum dose: 60 mg/kg/day
2ndChoice (Add to mood stabilizer)	1.....	Aripiprazole	15 mg/day increasing up to 30 mg/day as required OR
	2.....	Olanzapine	10 mg/day increasing to 15 mg or 20 mg as required
3rd Choice (Add to mood stabilizer)	1.....	Risperidone	2 or 3 mg/day increased to 6 mg/day as required
	2.....	Quetiapine	IR – 100 mg/day increasing to 800 mg/day as required. Higher starting doses have been used. XL – 300 mg/day increasing to 600 mg/day on day 2

Treatment of bipolar depression:

Condition	Dose	Therapy	Comments
1stChoice	1.....	Olanzapine + Fluoxetine	Start with 5 mg Olanzapine+ fluoxetine 20 mg ORALLY once daily each evening; may adjust dose for efficacy and tolerability within range of olanzapine 5 to 12.5 mg and fluoxetine 20 to 50 mg
	2.....	Quetiapine	IR: 50 mg orally once daily on day 1; 100 mg once daily on day 2; 200 mg once daily on day 3; and

			<p>then 300 mg once daily on day 4, with all doses given at bedtime; usual recommended and MAX dose is 300 mg/day</p> <p>XL: 50 mg orally once daily on day 1; 100 mg once daily on day 2; 200 mg once daily on day 3; and then 300 mg once daily on day 4, with doses given in the evening; usual recommended and MAX dose is 300 mg/day</p>
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Bipolar disorder with chronic diseases

Condition	Dose	Therapy	Comments
Diabetes or High cholesterol level & Cardiovascular disease	1.....	Aripiprazole	Starting dose 10-15mg, Maintenance dose 10-15mg, Maximum dose 30mg once daily OR
	2.....	Lamotrigine	200 mg/day (100 mg/day in patients taking valproate OR
	3.....	Valproate	IR:250 mg/day three times a day increasing according to tolerability & plasma levels, max. dose (15-30mg/kg/day) XL: 500mg /day increasing as above. Max. dose (20-30 mg/kg/day)
Renal impairment	1.....	Valproate	Start at low dose and increase slowly, monitor for adverse effects
	2.....	Carbamazepine	
	3.....	Lamotrigine	
Hepatic impairment	lithium	Use plasma levels to guide dosage. Care needed if ascites status changes

NOTES :

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Physician/Clinical Pharmacist Name: pager:.....

Physician/Clinical Pharmacist signature:.....

Nurse name: Nurse signature:

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