NURSE PRACTITIONER, PRIMARY CARE AND THE BIPOLAR PATIENT

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NURSE PRACTITIONERS FIT

- *Primary Care Nurse Practitioners (NP) identify mental health issues, provide initial medication and specialist referrals.*
- *NP's also monitor general health, medication levels, adjust and add adjunct therapies as well as treat co-morbid conditions such as hypertension and diabetes.*

DEALING WITH MENTAL HEALTH CONCERNS

- *Research found approximately 33% of the primary care (PC) population qualify as a mentally disordered.*
- *A PC based study reported a 9.8% prevalence of positive screening results for Bipolar Disorder.*

BIPOLAR DISORDER

- *Bipolar disorder (BPD) is a genetic, neuro-chemically complex, recurrent, and potentially progressive neuropsychiatric disorder, effecting 1-3% of US population.*
- *BPD involves dysregulation of mood, sleep, cognition, endocrine and motor systems.*

DEFINING TERMS

- *Bipolar 1 is one or more episodes of mania, typically both depressive and manic episodes alternating,*
- *Bipolar 2 is alternating major depression and hypomania.*

MAJOR DEPRESSION

- *DSM-IV defines Major Depression as a clinical syndrome including anhedonia (depressed mood) every day, all day for at least 2 weeks with significant functional impairment.*

ANHEDONIA

- *Anhedonia is accompanied by at least four other symptoms, sleep or appetite changes, fatigue, psychomotor retardation or agitation, lack of concentration, difficulty in decision making, helplessness, hopelessness, guilt, or frequent suicidal thoughts .*

DYSTHYMIA

- *Dysthymia is a mild, chronic depressive disorder characterized by fatigue, pessimism, low self-esteem, low motivation and decreased capacity for joy, not meeting major depression criteria.*

MANIA

- *Mania is observable heightened mood, faster speech, quicker thought, brisker physical & mental activity levels, greater energy, irritability, perceptual acuity, paranoia, heightened sexuality & impulsivity for at least seven days.*

HYPOMANIA & MIXED STATES

- *Hypomania is a moderate reflection of the above changes and may or may not result in serious problems for the individual experiencing them.*
- *Mixed states – episodes when major depression & mania criteria are met simultaneously.*

CYCLOTHYMIA & CYCLING

- *Cyclothymia represents dysthymia with a component of hypomania. Cyclothymia as related to bipolar I & II, is less severe and associated with less impairment.*
- *Cycling – the movement over time between episodes (mood swings).*
- *Cycling's 3 dimensions –frequency, time between episodes, duration*

IDENTIFYING BIPOLAR SPECTRUM DISORDER

Look for:

- *A family hx Bipolar in first degree relative*
- *Antidepressant induced mania or hypomania*
- *Hyperthymic personality*
- *Recurrent major depressive episode (>3 months)*
- *Brief major depressive episode (<3 months)*

BIPOLAR SPECTRUM CONT.

- *Atypical features (increased sleep or appetite)*
- *Psychotic major depressive episode*
- *Early age onset depressive episode (before age 25)*
- *Anti-depressant tolerance*
- *Lack of response to >3 anti-depressant treatment trials*

BIPOLAR SPECTRUM CONT.

Co-morbid conditions frequently occur such as:

- *Anxiety Disorder*
- *Attention Deficit Hyperactivity Disorder*
- *Obsessive Compulsive Disorder*
- *Substance Abuse*
- *Suicidal Ideations*

Mnemonic DIGFAST

- *Distractibility*
- *Insomnia*
- *Grandiosity*
- *Flight of ideas*
- *Activity*
- *Speech*
- *Thoughtlessness*

NEUROBIOLOGY & NEUROPHYSIOLOGY

- *Research suggests Bipolar & spectrum conditions arise from abnormalities in cellular plasticity leading to aberrant processing in synapses & circuits altering affective, cognitive, motoric & neurovegetative functions not simply deficits excesses in individual neurotransmitters.*

NEUROLOGY & BIOLOGY CONT.

- *Multiple systems are implicated in BPD including Serotonergic system, Noradrenergic system, Dopaminergic system, Cholinergic system, Glutamatergic system, GABergic system, Cortisol releasing factor (CRF)& Hypothalmic-pituitary (HPA) axis, & Peptids*

MULTIPLE FACTORS (MAY INFLUENCE)

- *Genetic Factors*
- *Chemical Factors*
- *Electrical Factors*
- *Emotional Factors*
- *Physical Factors*
- *Medication Factors*
- *Environmental Factors*
- *Reaction Factors*
- *Factors that = Balance*

GENETIC FACTOR

- *If you have a first degree relative (mother, father, or sibling) you are (7) times more likely to develop a bipolar disorder. Understanding that this disorder may not manifest the same in your self or relatives.*
- *Male vs. Female – Genetic/Brain Structure/Social Roles will make women more prone.*
- *Each disorder is unique and will need to be treated the same once the underlying causes are understood.*

ENVIRONMENTAL FACTORS

- *What are we exposed to today?*
  - *Stress and Stress Management*
  - *Sleep or Lack of Sleep*
  - *Work*
  - *Managing Family and Self*
  - *Biorhythms – Circadian Rhythms, sun / moon /seasons affect secretion of catecholamines (norepinephrine)*

NEUROLOGY & BIOLOGY CONT.

- *Investigators using high resolution 3-D MRI studies recorded diminished gray matter volumes in the orbital, medial prefrontal cortex, ventral striatum, amygdala & hippocampus.*
- *Imaging studies and post mortem neuropathology investigations reveal a reduction in glial cell numbers and cell body size.*

- *Looking for that "feel good" feeling or response?*
  - *Medications*
  - *Natural Remedies*
  - *Exercise / Diet*
  - *Group therapy – learning new brain responses*
  - *Alleviating the Anxiety*
  - *Life Style*
  - *Health Maintenance*

BALANCE FACTOR

MEDICATION FACTOR

- *Certain drug influences:*
  - *Medications for bipolar / schizophrenia diagnosis consider the effect to the illness itself and the side effects to the person*
  - *Other medications (concomitant) influences with or without treatment*
  - *Self-Medicating*

NEUROLOGY & BIOLOGY CONT.

- *Lithium and the mood stabilizer valproate demonstrate neuroprotective effects and in the case of lithium with chronic use enhances neuroplasticity & increasing brain cellular mass and numbers.*

HERITABILITY

- *Evidence for genetic links between family members is documented in family, twin & adoptions studies.*
- *Family studies of BPD show spectrum mood disorders are found among first degree relatives including MDD, BPD1, BPD2 & schizoaffective spectrum disorders.*
- *Although linkage studies suggest several regions in the genome, no established universal genetic risk factor or causative gene is identified.*

ASSESSMENT

- *Physical Assessment*
- *Interview – Patient symptoms*
- *History – Injuries, illness, genetics*
- *Social History – Work, habits, addictions*
- *Verifying information*
- *Previous Medical Records*

ASSESSMENT TOOLS

- *PHQ9*
- *Adult Wellbeing*
- *Bipolar*
- *Hypomania*
- *Mania*

ASSOCIATED SYMPTOMS INVENTORIES

- *GAD-7*
- *CAGE (Co-morbid Substance Abuse)*
- *ADHD (Adult ADHD Self-Report Scale, ASRS-v1.1)*
- *Suicidal Ideation Questions*
- *Pain Scale*

EVALUATION

- *Differential Diagnosis*
- *ID Co-morbid Conditions*
- *R/O Organic Disease*
- *Drug or Alcohol use/abuse*
- *Develop Plan*

COLLABORATIVE TREATMENT

- *Neuro-psychiatric Evaluation*
- *Neurology Consultation*
- *Psychology Consultation*
- *Diagnostic Imaging*
- *Laboratory Testing*

PHARMACOTHERAPEUTICS

For Bipolar Patients

ACUTE MANIA OR HYPOMANIA

In a frankly manic or hypomanic state urgent psychiatric hospitalization may be required.

Anti-depressants may need to be discontinued until the manic episode is resolved.

Intramuscular injection of medication may be required, hence the need for hospitalization.

Current first line choices are aripiprazole or olanzapine, haloperidol or lorazepam may be beneficial

HYPOMANIA OR MILD MANIA

Monotherapy

- *Lithium*
- *Carbamazepine*
- *Divalproex*
- *Risperidone*
- *Olanzapine*
- *Aripiprazole*

MODERATE TO SEVERE MANIA

Monotherapy may be attempted

Combination therapy is most often recommended

Dosage maximization is imperative

If change agents in combined therapy change only one agent at a time, otherwise effectiveness or SE's will be confused

ACUTE DEPRESSION

Available studies support a concern over use of antidepressants exacerbating mania.

When used, anti depressants are used in combination with mood stabilizers such as:

Olanzapine and fluoxetine

Bupropion and topiramate

Escitalipram and olanzapine or

Citalopram and aripiprazole

RAPID CYCLING

4 or more mood cycles in one year

May occur in a monthly cycle of switching between depression and mania

Choice of treatment difficult with the presence of severe depression prompting increased use of anti depressants that lead to extreme manic responses.

RAPID CYCLING CONTINUED

You must look for psychostimulants, prescription or recreational drug use, alcohol use, excessive caffeine intake and even over the counter diet pills.

The focus in rapid cycling is to approach mood stabilization as the primary goal.

The role of lithium should not be ignored in this setting as an effective treatment.

OLDER PATIENTS

The prevalence of bipolar disorder is believed to decrease in late life.

The onset of mania in later life, after the age of 60, may be more often associated with medical conditions such as stroke and other brain lesions.

The same medications used for younger patients are effective at lower doses. As always, start low and go slow.

MAINTENANCE THERAPY

Begin after the first manic episode

Discussion of the maintenance plan with the patient needs to occur immediately after mood stabilization

Medications used to successfully stabilize the patient from the initial episode should be continued

MEDICATIONS

The medications recommended overlap in frequency and are often used as combined therapy. For this reason medications will be covered regarding their dosing and effects under each section. In cases where medications repeat they will be mentioned and not reviewed. Many recommendations concern the use of atypical antipsychotics which have significant severe adverse side effects including; extrapyramidal symptoms, tardive dyskinesia, hyperglycemia and diabetes. Common side effects are; increased appetite, somnolence, fatigue and nausea and vomiting.

MEDICATIONS CONTINUED

Acute mania or hypomania with agitation will require acute admission due to the need for intramuscular medication until stabilization. Standard recommended therapy is:

Aripiprazole: 9.75-15 mg IM q 2 hours, max 30 mg/day

Olanzapine: 2.5 to 10 mg IM q 2-4 hours, max 30 mg/day

Secondary option

Haloperidol: 5 mg IM q 30-60 minutes max 8mg/day

Lorazepam: 1-2 mg IM q 30-60 min max 8 mg/day

MEDICATIONS CONTINUED

Acute mania or hypomania without agitation can be treated on an outpatient basis with oral monotherapy using a mood stabilizer or atypical antipsychotic such as;

Lithium: 900 mg/day divided into 3 to 4 doses daily. Maximum dose is 1800 mg/day. Therapeutic serum level is 0.6-1.2 mEq/L. >1.5 mEq/L is considered toxic.

Divalproex Sodium ER: 25-60 mg/kg/day in a single daily dose. Start at 25 mg/kg and dose rapidly to the lowest effective dose. Therapeutic drug level in mania 50-125 mcg/ml, >175 mcg/ml is considered toxic.

MEDICATIONS CONTINUED

Acute mania or hypomania without agitation cont.

Carbamazepine: 200-800 mg/day. Start at 100-200 mg po twice daily and increase by 200 mg/day every 3-4 days. Maximum dose is 1600 mg/day. Therapeutic drug levels 4-12 mcg/ml, toxic level > 12 mcg/ml.

Risperidone: Start at 2 mg daily and adjust by doses of 1 mg over more than 24 hours. Maximum dose 6 mg/day.

MEDICATIONS CONTINUED

Acute mania or hypomania without agitation cont.

Olanzapine: Start at 5 mg daily and adjust dose by 5 mg daily as needed. Maximum dose is 20 mg daily.

Quetiapine: Start at 50 mg at bedtime. Increase to 100 mg qhs, then 200 mg qhs, then 300 mg qhs. Maximum dose is 600 mg/day, though doses greater than 300 mg/day are rarely more effective.

Aripiprazole: Start at 15 mg/day. Maximum daily dose 30 mg/day.

Recommended combination therapy with Risperidone, Olanzapine, Quetiapine, and Aripiprazole are lithium and valproate.

MEDICATIONS CONTINUED

Acute mania or hypomania without agitation cont.

Adjunct Therapy:

Clonazepam: For patients failing monotherapy a benzodiazepine may be added. Start at 0.25-0.5 mg 2-3 times a day.

MEDICATIONS CONTINUED

Moderate to severe disease without agitation uses the same medications as the above scenario. The addition is oral typical antipsychotics such as;

Primary options

Oral combination therapy: Mood stabilizer and atypical antipsychotic

Lithium: 900 mg/day divided into 3 to 4 doses daily.

Divalproex Sodium: 20 mg/kg to maximum of 60 mg/kg. Target serum level 80-100 mcg/ml.

Carbamazepine: 200-800 mg/day. Start at 100-200 mg po twice daily and increase by 200 mg/day every 3-4 days. Maximum dose is 1600 mg/day.

MEDICATIONS CONTINUED

Moderate to severe disease without agitation cont.

And

Risperidone: 1 mg po daily, max 6 mg/day or

Olanzapine: 5 mg/day max 20 mg/day or

Quetiapine: 5 mg/day max 20 mg/day

Aripiprazole: 15 mg/day max 30 mg/day

Ziprasidone: 40 mg twice daily max 160 mg/day

MEDICATIONS CONTINUED

Moderate to severe disease without agitation cont.

2nd oral typical antipsychotics

Haloperidol: 2 mg/day orally initially given in 2-3 divided doses, increase according to response, maximum 12 mg/day. D/C if ANC <1000.

Chlorpromazine: 30 mg/day orally initially given in 1-4 divided doses, increase according to response, maximum 1000 mg/day

MEDICATIONS CONTINUED

Non-rapid cycling, non-pregnant, acute depression uses a mix of selective serotonin reuptake inhibitors (SSRIs) and atypical antipsychotics primarily such as;

Quetiapine: 50 mg/day, increase according to response, max 800 mg/day in 2-3 divided doses. 300 mg ER/day max 600 mg ER/day

Olanzapine/fluoxetine: 6 mg/25 mg orally once daily initially, increase according to response, maximum 12 mg/50 mg once daily

MEDICATIONS CONTINUED

Non-rapid cycling, non-pregnant, acute depression cont;

And

Lithium: 900 mg/day divided into 3 to 4 doses daily. Maximum dose is 1800 mg/day.

Bupropion: 150 mg/day max 450 mg/day given BID

Aripiprazole: 15 mg/day max 30 mg/day

Divalproex sodium: 20 mg/kg ER max 60 mg/kg serum level target 80-100 mcg/ml

Quetiapine: 50 mg/day max 800 mg/day bid or tid

And

Citalopram: 20 mg/day max 40 mg/day

Escitalopram: 10 mg/day max 20 mg/day

MEDICATIONS CONTINUED

Non-rapid cycling, non-pregnant, acute depression cont;

Fluoxetine: 20 mg/day max 80 mg/day

Paroxetine: 20 mg/day max 50 mg/day

Sertraline: 50 mg/day max 200 mg/day

MEDICATIONS CONTINUED

Rapid cycling and non-pregnant uses the same medications as the acute mania or hypomania setting noted above.

Lithium: 900 mg/day divided into 3 to 4 doses daily. Maximum dose is 1800 mg/day.

Divalproex sodium: 20 mg/kg ER max 60 mg/kg serum level target 80-100 mcg/ml

Carbamazepine: 200-800 mg/day initially bid

Risperidone: 1 mg po daily, max 6 mg/day

Olanzapine: 5 mg/day max 20 mg/day

Quetiapine: 50 mg/day max 800 mg/day bid or tid

Aripiprazole: 15 mg/day max 30 mg/day

MEDICATIONS CONTINUED

Rapid cycling and non-pregnant uses the same medications as the acute mania or hypomania setting noted above.

And

Clonazepam: 1 mg/day bid or tid max 6 mg/day or

Risperidone: 1 mg po daily, max 6 mg/day or

Olanzapine: 5 mg/day max 20 mg/day or

Quetiapine: 50 mg/day max 800 mg/day bid or tid or

Aripiprazole: 15 mg/day max 30 mg/day

MEDICATIONS CONTINUED

After stabilization in the non-pregnant patient with mania maintain therapy with the medication that managed the acute mania initially. Additional medications for mood stabilization can include:

Topiramate: Titration is required starting at 25 mg bid times 3 days, then 25 mg qam and 25 mg 2 qpm, then 25 mg 2 bid, the 25 mg 2 qam and 3 qpm, then 25 mg 3qam and 3qpm with each of these transitions occurring over one week (as in 25 mg qam and 25 mg 2 qpm times 1 week). After the 3 qam and 3 qpm the final dosing is 50 mg 2 qam and 2 qpm as a final dose, which becomes the chronic dosing.

MEDICATIONS CONTINUED

Maintenance therapy should involve monitoring for relapse or recurrence of the initial presenting symptoms. Also look for adverse effects of the medications, both neurological (extrapyramidal side effects and tardive dyskinesia) and metabolic (obesity, diabetes, dyslipidemia) or toxicity complications (renal, hematologic, hepatic). When using antidepressants be aware that these may trigger or exacerbate mania, cycling or even suicide.

INITIAL TREATMENT

Treat the worst presenting symptoms first.

Suicidal Ideations

Major Depressive Episode

Manic Symptoms

Psychosis

MONITORING AND FOLLOW-UP

Relationship Building

Medication Management

Laboratory Monitoring

Primary Health Maintenance and Wellness

Primary Source for Referrals

Frequent Follow up

INDIVIDUAL ISSUES

- *#1 problem – Lack of Insight*
- *#2 problem – Lack of Trust*
- *#3 problem - Lack of Motivation*
- *#4 problem – Medications Intolerance*
- *#5 problem – Discontinuation of Treatment*

REFERRAL ISSUES

Access

- *Availability – Growing gap between mental health services demand and available mental health (MH) professionals.*
- *Travel – Geographic distribution of MH providers.*

AFFORDABILITY

- *Insurance – Until recently mental health services often not covered.*
- *State Aid Programs – Qualifying for State programs requires ability to complete application forms.*

NURSE PRACTITIONER EXPANDED

- *Primary Care NPs are the first to identify the need for mental health services.*
- *Primary Care NPs are frequently the provider to which the individual returns for further care.*

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RESOURCES / WEBSITES

- *American Family Physician http://www.aafp.org*
- *American Psychological Association http://www.apa.org*
- *Cleveland Clinic Journal of Medicine http://www.ccjm.org*
- *http://www.freemedicaljournals.com*
- *Johns Hopkins University http://www.johnshopkinshealthalert.com*
- *National Alliance on Mental Illness (NAMI) http://www.nami.org*
- *National Institute of Mental Health (NIMH) http://www.nimh.nih.gov*
- *U. S. Preventative Services Task Force*

ASSESSMENT TOOL WEBSITES

- *The Mood Disorder Questionnaire is obtained online one reliable source is [http://www.dbsalliance.org/pdfs/MDQ.pdf].*
- *HCL-32 can be retrieved at [http://www.psycheducation.org/depression/HCL-32Listonly.pdf]*
- *PROS is found at several reliable sites, the following is easily accessed, [http://lmasettlements.com/documents/psych_review.pdf].*
- *PHQ-9 available at [http://www.integration.samhsa.gov/images/res/PHQ%20-%20Questions.pdf]. (World Health Organization – approved for unrestricted use with copyright acknowledgment.)*
- *Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist available at [http://www.med.harvard.edu/ncs/ftpdir/adhd/18%20Question%20ADHD-ASRS-v1.1.pdf].*
- *CAGE is found [http://www.hopkinsmedicine.org/johns_hopkins_healthcare/downloads/CAGE%20Substance%20Screening%20Tool.pdf].*
- *DAST can be obtained at [http://www.leademcounseling.com/wp-content/uploads/DAST.pdf].*
- *MAST can be downloaded from [http://www.leademcounseling.com/wp-content/uploads/MAST.pdf].*
- *GAD-7 is retrievable at [http://www.psychiatrictimes.com/all/editorial/psychiatrictimes/pdfs/scale-GAD7.pdf].*
- *The pocket guide can be downloaded from [http://www.mentalhealth.va.gov/docs/Suicide-Risk-Assessment-Guide.pdf].*