

Medication Survey in Patients with LOTS

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Supported by a grant from the Mt. Sinai Health Care Foundation

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Results of Medication Survey Study

- 50 surveys and 42 diaries were sent out.
- Approximately 75 percent of surveys and 65 percent of diaries were returned.
- Results presented are based on the surveys. The diaries added very little additional information.

Signs of Neurologic Worsening

- Poor balance
- Weakness
- Slurred speech
- Incoordination
- Tremor
- Unclear thinking

Time Course of Neurologic Worsening

- Weeks to Months

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Response to Withdrawal of Meds

- Response to withdrawal of meds was variable, and is still being analyzed

Summary/Conclusions: Antipsychotic Meds

- The survey data confirmed anecdotal reports of worsening of neurologic symptoms with the antipsychotic meds Haldol (8/10) and Thorazine (3/3).
- Some new classes of antipsychotic meds were also implicated in worsening the disease process, most notably Risperdal (5/6 got worse, though some obtained improvement of psychosis).

Summary/Conclusions:

Antipsychotic Meds (Con't)

- Zyprexa gave a mixed picture: 8 patients total, 3 of whom worsened neurologically (though 1 of these had improved psychosis), 2 others had improved psychosis, and 3 had no effect or were not sure.
- Other antipsychotic meds were taken by only a small number of patients.

Summary/Conclusions:

Antidepressants (Elavil, Sinequan, Pamelor)

- Tricyclic Antidepressants, which by anecdotal reports cause neurologic worsening, gave a mixed picture: 6 patients total, 4 of whom had no effect and 2 improved but 1 of these had neurologic worsening.

Summary/Conclusions: Antidepressants (Con't)

- Of the Selective Serotonin Reuptake Inhibitors (taken for depression), Celexa and Paxil most frequently resulted in improvement with the least neurologic worsening.

Summary/Conclusions: Mood Stabilizers and Anti- Anxiety Meds

- Of the mood stabilizing agents, Tegretol and Lithium most frequently resulted in improvement with the least neurologic worsening.
- Of the anti-anxiety medications, Ativan, Klonopin, and Xanax most frequently resulted in improvement with the least neurologic worsening.

Summary/ Conclusions: General Meds

Many general medications were relatively safe and effective, including:

- Benadryl (10/11)
- Tylenol (15/15)
- Ibuprofen (12/12)
- Aspirin (4/4)
- Naprosyn (4/5 and 1 with no effect)
- Tums (6/6)
- Peptobismol (5/5)
- Imodium (7/7)



Effects of Antipsychotic Meds on Neurologic and Target Symptoms

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Antipsychotic Meds That Most Frequently Caused Neurologic Worsening

- haloperidol (Haldol) - 8 of 10 patients worsened neurologically; 2 had no change.
- risperidone (Risperdal) - 5 of 6 patients worsened neurologically (though 2 of these improved psychosis, and 1 improved at lower doses); 1 no effect.
- olanzapine (Zyprexa) - 3 of 8 patients worsened neurologically (though 1 of these improved psychosis at lower doses); 2 others had improved psychosis; 3 no effect/not sure.
- chlorpromazine (Thorazine) - 3 of 3 patients worsened neurologically.

Antipsychotic Meds Taken by a Small Number of Patients : With Neurologic Worsening

- aripiprazole (Abilify) - 1 patient worsened neurologically, but improved psychosis
- quetiapine (Seroquel) - 1 patient worsened neurologically, but improved psychosis
- molindone (Moban) - 1 patient worsened neurologically

Antipsychotic Meds Taken by a Small Number of Patients (Con't): Without Neurologic Worsening

- trifluoperazine (Stelazine) - 1 patient improved psychosis, no neurologic worsening
- fluphenazine (Prolixin) – 1 patient improved psychosis, no neurologic worsening
- thioridazine (Mellaril) - 2 patients with no effect

Effects of Antidepressant Meds on Neurologic and Target Symptoms

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Tricyclic Antidepressants

6 patients total:

- 4 patients – no effect/not sure of effect (2 on elavil, 1 on sinequan, 1 on pamelor)
- 1 patient - improved depression without neurological worsening (pamelor)
- 1 patient – improved depression with neurologic worsening (elavil)

Selective Serotonin Reuptake Inhibitors

- Celexa - 2 patients; both improved
- Paxil - 6 patients; 4 improved, 1 of whom worsened neurologically; 2 no effect/not sure
- Zoloft - 9 patients; 3 improved but had neurologic worsening; 6 no effect/not sure
- Prozac - 7 patients; 4 improved, 2 of whom worsened neurologically; 3 no effect/not sure

Miscellaneous Antidepressants

- Wellbutrin - 4 patients; 2 with neurologic worsening; 2 no effect/not sure
- Effexor - 2 patients; 1 improved; 1 induced hypomania
- Remeron - 4 patients; 2 improved, 1 of whom had neurologic worsening; 2 no effect

Electroconvulsive Therapy

- 3 patients total
- 2 reported improved psychiatric symptoms, 1 with neurologic worsening
- 1 reported neurologic worsening with no improvement of psychiatric symptoms

Effects of Mood Stabilizing/Antiepileptic Meds on Neurologic and Target Symptoms

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Mood Stabilizing/Antiepileptic Meds That Improved Target Symptoms

- carbamazepine (Tegretol) - 9 of 13 improved, 1 worsened neurologically, 3 no effect/not sure
- lithium (Eskalith, Lithobid) - 6 of 11 improved (1 of whom worsened neurologically), 2 others worsened neurologically, 2 no effect/not sure, 1 diarrhea
- Valproate (Depakote) – 5 of 8 improved (3 of whom worsened neurologically), 2 others worsened neurologically, 1 no effect

Other Mood Stabilizing/Antiepileptic Meds

- phenytoin (Dilantin) - 2 of 3 improved, 1 no effect
- lamotrigine (Lamictal) - 2 of 3 improved (1 of whom worsened neurologically), 1 no effect
- gabapentin (Neurontin) - 1 of 3 improved, 1 had neurologic worsening, 1 no change
- topiramate (Topamax) - 1 had neurologic worsening

Effects of Anti-Anxiety Meds on Neurologic and Target Symptoms

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Benzodiazapines

- lorazepam (Ativan)- 7 of 12 improved, 2 had neurologic worsening, 3 no effect/not sure
- clonazepam (Klonopin) -5 of 9 improved, 4 no effect/not sure
- alprazolam (Xanax) - 3 of 4 improved, 1 had neurologic worsening at high doses
- diazepam (Valium) - 2 of 4 had neurologic worsening, 2 no effect

Other Anti-Anxiety Meds

- buspirone (Buspar) - 1 patient had no effect

Effects of Stimulants on Neurologic and Target Symptoms

- methylphenidate (Ritalin) – 1 of 4 improved, 2 had neurologic worsening, 1 not sure
- modafinil (Provigil) - 2 of 2 improved, with no neurologic worsening
- amphetamine (Adderall) - 1 improved, with no neurologic worsening

Effects of Sleep Aids/Antihistamines on Neurologic and Target Symptoms

- Benadryl - 10 of 11 improved, 1 not sure
- zolpidem (Ambien) - 1 of 4 improved, 3 no effect/not sure
- zaleplon (Sonata) - 1 no effect/not sure
- Nyquil - 1 improved
- Sominex - 1 no effect

Effects of Supplements on Neurologic Symptoms

Supplements taken by 1 patient each, with no neurologic worsening:

- creatine
- L-carnitine
- glutathione
- KM
- pure synergy
- melatonin

Effects of Supplements on Neurologic Symptoms

- One patient who took 5-Hydroxytryptophan reported worsening of neurologic symptoms

Effects of Hormones on Neurologic Symptoms

Hormones taken by a small number of patients with no neurologic worsening:

- Lo-estrin - 2 patients
- OrthoNovum - 1 patient
- Lo-ovral - 1 patient

Effects of Hormones on Neurologic Symptoms

- One patient who took Prometrium reported worsened neurologic symptoms (worsened coordination and speech)

Effects of General Meds on Neurologic and Target Symptoms

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Pain Meds That Helped Target Symptoms With No Neurologic Worsening

- Tylenol (15/15)
- Ibuprofen (12/12)
- Aspirin (4/4)
- Naprosyn (4/5 and 1 with no effect)

GI Meds That Helped Target Symptoms With No Neurologic Worsening

- Tums (6/6)
- Peptobismol (5/5)
- Imodium (7/7)
- Milk of Magnesia; Colace (3/3)
- Alka Seltzer; Miralax (2/2)

Miscellaneous Meds That Helped Target Symptoms With No Neurologic Worsening

- Fosamax (3/3)
- Clinda/Erythro-mycin (4/4)
- Robitussin (2/2)
- Triamterine/HCTZ (2/2)