

## The Role of Medication in the Management of ASD

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## Neurotransmitter Disorder?

- Serotonin
- Dopamine
- Glutamate/GABA – Excitation/Inhibition

## Approaches and trends

- Risperidone and Aripiprazole FDA approved for irritability
- No medications approved in the UK
- Shift from antipsychotics to SSRIs

## Mandell 2008

- 60641 children 0-21; Medicaid data from 2001
- 56% taking psychotropic medication
- 20%  $\geq$  3 medications
- 22% Stimulants
- 25% Antidepressants
- 31% Antipsychotics
- Associations: Foster Care, Co-Morbidity, Rural

## Spencer 2013

- 33565 children 0-20; admin data 2001-2009
- 64% taking psychotropic medication
- 15%  $\geq$  3 medications
- Associations: Co-Morbidity, Psychiatrist, Rural

## Lopata 2013

- 115 children 6-13 with HFA
- 33% taking psychotropic medication
- 25% stimulants, 10% antidepressants, 6% antipsychotics
- All stimulants used in children with appropriate symptoms
- 57% AP and 42% AD, no relevant symptoms
- Lower IQ

### Downs 2016

- 3482 children 2-17; mental health 2008-13
- 10% Antipsychotic
- Associations: psychosis, tics, depression, OCD, hyperkinesia, age, aggression, self injury

### Dalsgaard 2013

- 852,711 children 1990-2001; registers
- Methylphenidate, Dexamphetamine, Atomoxetine
- 16% ASD, 61% ADHD
- 2003-2010 prescribing to 6-13 year olds with ASD increased 4.7 fold

### Recurring themes

- Trials of drugs for ASD symptoms often exclude children with psychiatric co-morbidity
- Adults respond better than youth (and have fewer side effects)
- Usually 12 week duration
- Impulsivity, psychosocial functioning, irritability
- Increased rate of side effects (weight gain)
- RUPP, SOFIA,

### ADHD

- Methylphenidate, Dexamphetamine, Atomoxetine
- Rates of response lower than in ADHD alone
- Rates of adverse events higher
- May increase anxiety
- Start low and go slow
- Good protocols for recording symptoms and side effects
- Still need help with executive function

### Anxiety

- Change the environment
- Relaxation techniques
- CBT
- Benzodiazepines still being prescribed in adults
- SSRIs mainstay of pharmacological treatment
- More effective in adults than youth
- Fewer side effects in adults
- Different side effect profiles
- Escitalopram most potent

### Depression

- Reduce environmental stressors
- Life plan
- SSRIs
- Tricyclic antidepressants
- MAOIs

## OCD

- CBT
- SSRIs (Escitalopram)
- Clomipramine (High rates of side effects)
- Clomipramine and Fluvoxamine

## Psychosis

- Reduce stress and social isolation
- Atypical antipsychotics
- Typical antipsychotics
- Extrapiramidal symptoms
- Weight gain and metabolic syndrome
- Increase in Prolactin

## BPD

- Mood stabilisers
- + SSRI

## New Drugs

- Oxytocin
- Memantine
- Bumetanide

## Systemic issues

- Heterogeneity (Family History)
- Individuals with ID may not be able to report side effects
- Few practise parameters
- Always suspect anxiety
- Start at low doses, but also increase!
- Aim is fewest medications at lowest effective doses