Appendix 1 (as supplied by authors): Medical and psychiatric comorbidities

Medical comorbidity: Work is ongoing, for example by the Autism Treatment Network (see Recommended Resources; Box 3), to develop guidelines about how best to investigate medical etiologies or comorbidities in ASD. A careful history is still the most useful tool to identify areas of concern. Epilepsy affects ~21.5% of individuals with ASD plus ID, versus 8% of those with average intellect[1].

Gastrointestinal (GI) problems are prevalent in children with ASD[2]. Reflux is more common among infants who later develop ASD; gastroesophogeal reflux disorder (GERD) has been described in older, non-verbal children with self-injurious behaviour[2]. Constipation is common. Dietary restriction is frequently self-imposed by children with ASD and careful review of what the child eats is an essential part of the medical history.

Sleep disorders are common[3]. Although neurometabolic syndromes have been reported in ASD, metabolic workup is indicated only in children with significant regression, excessive fatigue or lethargy, failure to thrive, growth abnormalities, recurrent vomiting, hypotonia or motor skills delayed out of proportion with mental age[4].

Psychiatric comorbidity[5,6]: Many with ASD develop mental health problems during child- or adulthood, but epidemiological data are sparse. ADHD and externalizing disorders are more prevalent among those with ASD than in the general population. Tourette syndrome and chronic tic disorders commonly co-occur with ASD, as do anxiety disorders and obsessive compulsive disorder (OCD). To differentiate OCD from ASD, a useful discriminator is whether the ritualistic and restricted patterns are pleasurable (in ASD) or cause distress (in OCD). While depressive symptoms are also common, the frequency of major depressive disorder is less clear. Although mental illness usually presents as in typically developing peers, challenging behaviours may be the presenting feature among those with ASD who are intellectually impaired. Although some of these comorbidities can be managed in the primary care physician's office, others may require referral to a psychiatrist or psychologist[7].

Appendix to: Anagnostou E, Zwaigenbaum L, Szatmari P, et al Autism spectrum disorder: advances in evidence-based practice. *CMAJ* 2014. DOI:10.1503/cmaj.121756.

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