

Addressing cardiometabolic risk factors in people with an intellectual disability

Jessica Walsh, Professor Katherine Samaras and Professor Julian Trollor

Department of Developmental Disability Neuropsychiatry
University of New South Wales

The Department of Developmental Disability Neuropsychiatry (3DN) at UNSW Australia recently launched **Positive Cardiometabolic Health for People with an Intellectual Disability: an early intervention framework and resources**. Resources are free to download from the 3DN website.

Cardiometabolic health in people with an ID

People with an ID have poorer physical health than the general population and die at a younger age, often from preventable causes (Coppus 2013). A major cause of this health disparity is cardiometabolic illness (Draheim 2006). People with an ID have a higher rate of psychotropic medication prescription than the gen-

eral population, are prescribed psychotropics from a younger age and experience polypharmacy, all of which have major impact on their cardiometabolic health (Matson & Maham 2010). People with an ID have higher rates of mental health disorders than the general population (Cooper et al 2007); however psychotropic medications are also often prescribed for treatment of challenging behaviour. There is little evidence to support the effectiveness of prescribing for challenging behaviour in people with an ID (Tyrer et al 2008 & La Malfa et al 2006). Psychotropic medications frequently lead to weight gain, increased blood pressure and deteriorated metabolism of blood sugars and fats, even in children and adolescents

POSITIVE CARDIOMETABOLIC HEALTH FOR ADOLESCENTS WITH AN INTELLECTUAL DISABILITY: an early intervention framework

ADAPT YOUR PRACTICE while addressing STANDARD TARGETS!

Plan for: communication adjustments; engagement with support networks; extra time; consent; teamwork.

Activity	Diet, lifestyle weight/waist	Socioeconomic resources	Blood pressure	Glucose regulation	Fasting blood lipids	Psychotropic prescription
<ul style="list-style-type: none"> Physical activity: (e.g. >60 mins per day) Screen-based activities: <2 hrs per day 	<ul style="list-style-type: none"> Non-smoker, balanced diet, no alcohol or other drug use BMI¹: <85th centile Waist: height ratio: <0.5 	<ul style="list-style-type: none"> Socioeconomic status is associated with cardiometabolic health Ensure adequate access to housing, healthcare, transportation, education and employment opportunities 	<ul style="list-style-type: none"> <90th centile Use appropriate cuff size for arm circumference 	<ul style="list-style-type: none"> For most: FPG <5.5 mmol/L; HbA1c <42 mmol/mol (6.0%) For people with diabetes: HbA1c <58 mmol/mol (7.5%) For aversion to venepuncture see over 	<ul style="list-style-type: none"> Total Chol <4.4 mmol/L LDL <2.85 mmol/L HDL >1.56 mmol/L Trig <1.02 mmol/L 	<ul style="list-style-type: none"> Evidence based prescription to treat symptoms of defined mental illness and/or when challenging behaviours are severe and non-responsive to other interventions Minimum effective dose and length of treatment²

Any values outside of target range: DON'T JUST SCREEN – INTERVENE

Tailored intervention brochures can be downloaded from <https://3dn.unsw.edu.au/positive-cardiometabolic-health-id>

Using a person-centred approach PROVIDE TAILORED LIFESTYLE & NUTRITIONAL INTERVENTIONS:

If arranging multidisciplinary follow-up falls outside your practice scope make appropriate referrals to the person's GP and ensure proactive follow-up.

For physical health interventions create a **GP Management Plan** (MBS item: 721) and a **Team Care Co-ordination Plan** (MBS item: 723).

For Mental Health interventions consider using a **Mental Health Treatment Plan** (MBS items: 2700, 2701, 2715 or 2717) and referral to a psychiatrist and/or psychologist.

<ul style="list-style-type: none"> ↓ sedentariness; ↓ screen time; ↑ physical activity; Account for any co-existing physical impairments* Consider referral to exercise physiologist (MBS item: 10953) or physiotherapist (MBS item: 10960) 	<ul style="list-style-type: none"> ↓ energy intake; stop soft drinks/juices; ↑ vegetables and fibre Consider referral to dietitian (MBS item: 10954); exercise physiologist (MBS item: 10953); psychotherapist (MBS item: 10960); occupational therapist (MBS item: 10958)³ Referral to smoking or D&A cessation program 	<ul style="list-style-type: none"> Include social worker in multidisciplinary case conference (MBS items: 735 – 758). If the person has a diagnosed mental illness they can also receive individual social worker sessions (MBS item: 80150) Referral to disability support services 	<ul style="list-style-type: none"> Consider antihypertensive therapy if lifestyle intervention alone is insufficient⁴ Limit salt in diet Education about blood pressure management 	<ul style="list-style-type: none"> Diabetes educator (MBS item: 10951) AT RISK: FPG 5.6 – 6.9 mmol/L; HbA1c 42 – 47 mmol/mol (6.0 – 6.4%); CGIT; if abnormal refer to specialist. Consider metformin if lifestyle intervention insufficient. DIABETES: FPG >7.0 mmol/L, RPG >11.1 mmol/L, HbA1c >48 mmol/mol Endocrine review 	<ul style="list-style-type: none"> Referral to paediatrician to consider Statin if lifestyle intervention alone is insufficient⁵ Fibrate for triglycerides 	<ul style="list-style-type: none"> Consider switching, decreasing or discontinuing if metabolic side effects emerge; rationalise any polypharmacy; where possible avoid high metabolic liability medication as first line treatment⁶ (Chlorzoxiprolone review – MBS item: 900); provide psychiatric education
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¹Certain causes of intellectual disability may alter baseline cardiometabolic risk. ²BMI may be inaccurate if person has muscle wasting caused by physical disability or an inability to stand upright. If BMI is >30, assume at risk waist circumference.

³Weight gain in first 3 months should be <5 kg (or <7% from baseline). ⁴In people with dietary insufficiencies consider checking folate and Vit B12. ⁵Consider referral to specialist if additional input required.

(Pramyothin & Khaodhiar 2010). Despite these potential side-effects, psychotropic medication is over-prescribed in people with an ID. Other cardiometabolic risk factors for people with an ID include higher rates of obesity and lower levels of physical activity than their peers (De et al 2008 & Emerson et al 2014), low socioeconomic status and certain genetic syndromes associated with ID (Barker et al 2007, Grotto et al 2008, Landesman Ramey et al 1999 & Wallace 2004).

Health professionals engaged in the care of people with ID would benefit from education on how to champion improved cardiometabolic health in people with an ID, including how to facilitate and support lifestyle and multi-disciplinary approaches to healthcare. It is essential that cardiometabolic health in people with an ID is monitored and appropriately managed, especially if psychotropic medication is prescribed.

Cardiometabolic Early Intervention Framework and Resources

Positive Cardiometabolic Health for People with an Intellectual Disability: an early intervention framework and resources has been adapted from a generalist monitoring framework* to address the specific cardiometabolic health needs of people with an ID (Troller et al 2016). Adolescent and adult versions of the Early Intervention Framework are available.

The Early Intervention Framework guides health professionals through screening of cardiometabolic risk factors in people with an ID. It provides age-specific, healthy target measures for each cardiometabolic risk factor as well as lifestyle and nutritional intervention strategies, including multidisciplinary referral options and relevant MBS item numbers. Additionally, the Early Intervention Framework outlines monitoring schedules for people with an ID on psychotropic medications, provides tips for overcoming fear or refusal of blood tests, identifies genetic syndromes associated with ID and their cardiometabolic risk profiles and links to consumer and clinician resources. The Early Intervention Framework has been endorsed by multiple professional colleges and consumer organisations including the Royal Australian and New Zealand College of Psychiatrists and the National Heart Foundation. A description of the development process and recommendations of the Early Intervention Framework has been published in the *Australian Journal of Primary Health* (Troller et al 2016). To access this publication, go to <http://www.publish.csiro.au/?paper=PY15130>

In order to empower people with an ID and their carers to encourage and engage their health professionals in monitoring cardiometabolic health, 3DN has also developed consumer postcards. These postcards provide information on staying healthy to people with an ID

“Postcards provide information on staying healthy to people with an ID ...”

and carers, and encourage them to bring the postcard to the doctor. The reverse side of the postcard has information for the doctor on how to access the Early Intervention Framework and Resources and the need to monitor cardiometabolic health.

The resources were launched at a forum at UNSW Australia in July 2016. To access the Early Intervention Framework and resources or view forum presentations from multidisciplinary experts in the field, go to <https://3dn.unsw.edu.au/positive-cardiometabolic-health-ID> All resources are free to download.

* The Early Intervention Framework was adapted from the psychiatry resource *Positive Cardiometabolic Health: an early intervention framework for patients on psychotropic medications*. This resource informs the assessment and management of cardiometabolic syndrome and related physical health issues in patients with severe mental illness. Adult and adolescent versions can be downloaded from <http://www.heti.nsw.gov.au/adolescentcma/>

References

Please see full reference list on page 13.

Contributing Authors

Ms Jessica Walsh - Project Officer,
Department of Developmental Disability
Neuropsychiatry, UNSW Australia

Prof Katherine Samaras – Professor, UNSW Medicine;
Senior Staff Specialist, Department of Endocrinology,
St Vincent’s Hospital, Darlinghurst; Laboratory Head,
Adipose Biology, Diabetes and Metabolism Division,
Garvan Institute of Medical Research; Director, Australian Centre for Metabolic Health, St Vincent’s Campus

Prof Julian Troller - Chair, Intellectual Disability Mental Health; Head, Department of Developmental Disability Neuropsychiatry; Professor, School of Psychiatry, UNSW Medicine