Lester UK Adaptation | **2014 update**

Positive Cardiometabolic Health Resource

An **intervention framework** for people experiencing **psychosis** and **schizophrenia**

Don't just SCREEN – INTERVENE

for all patients in the "red zone"

Lester UK Adaptation: Positive Cardiometabolic Health Resource

This Cardiometabolic Health Resource supports the recommendations relating to monitoring physical health in the NICE guidelines on psychosis and schizophrenia in adults (www.nice.org.uk/guidance/cg178) and young people (www.nice.org.uk/guidance/cg155). In addition it also supports the statement about assessing physical health in the NICE quality standard for psychosis and schizophrenia in adults (www.nice.org.uk/guidance/qs80).

National Institute for Health and Care Excellence, November 2015

This clinical resource supports the implementation of the physical health CQUIN https://www.england.nhs.uk/wp-content/uploads/2015/03/9-cquin-guid-2015-16.pdf (page 13) which aims to improve collaborative and effective physical health monitoring of patients experiencing severe mental illness. It focusses on antipsychotic medication for adults, but many of the principles can be applied to other psychotropic medicines given to adults with long term mental disorders, e.g. mood stabilisers.

For all patients in the "red zone" (see center page spread): The general practitioner, psychiatrist and patient will work together to ensure appropriate monitoring and interventions are provided and communicated. The general practitioner will usually lead on supervising the provision of physical health interventions. The psychiatrist will usually lead on decisions to significantly change antipsychotic medication.

Download Lester UK Adaptation: www.rcpsych.ac.uk/quality/NAS/resources

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An **intervention framework** for people experiencing **psychosis** and **schizophrenia**

Smoking	Lifestyle and Life Skills	Body Mass Index (BMI) Weight	Blood Pressure	Glucose Regulation Assess by fasting blood glucose (FPG); random blood glucose (RBG); HbA_{1c}	Blood Lipids
RED ZONE					
Current smoker	Poor diet **AND/OR** Sedentary lifestyle	BMI ≥25 kg/m² (≥23 kg/m² if South Asian or Chinese) **AND/OR** Weight gain >5kg over 3 month period	>140 mm Hg systolic **AND/OR** >90 mm Hg diastolic	HbA_{1C} or Glucose threshold: HbA_{1C} ≥42 mmol/mol (≥6%) **AND/OR** FPG ≥5.5 mmol/l **OR** RPG ≥ 11.1 mmol/l	Total chol/HDL ratio to detect high (>10%) risk of CVD based on QRISK-2 Tool http://qrisk.org/ *Note: CVD risk scores can underestimate risk in those with psychosis*
INTERVENTIONS					
Medication review and lifestyle advice to include diet and physical activity ***NB** Family history of diabetes and/or premature heart disease heightens cardiometabolic risk.*					
Refer for investigation, diagnosis and treatment by appropriate clinician if necessary.					
Brief intervention Combined NRT and/or varenicline Individual/group behavioral support or specialist support if high dependency Referral to Smoking Cessation service		Follow NICE guidelines for obesity http://www.nice.org.uk/CG43	Follow NICE hypertension guidelines https://www.nice.org.uk/guidance/ng136 Consider anti-hypertensive therapy Limit salt intake in diet	**At High Risk of Diabetes** HbA_{1c} 42-47 mmol/mol (6.0% - 6.4%) FPG 5.5 - 6.9 mmol/l i) Offer intensive structured lifestyle education programme ii) If ineffective consider metformin	**Diabetes** HbA_{1c} ≥48 mmol/mol (≥6.5%) FPG ≥7.0 mmol/l RPG ≥11.1 mmol/l Endocrine review Follow NICE diabetes guidelines http://www.nice.org.uk/CG87	Follow NICE guidelines for lipid modification **AND** Refer to specialist if total cholesterol >9, non-HDL chol >7.5 or TG>20 (mmol/l) **AND** Consider lipid modification for those with CVD or Diabetes
TARGET					
Stop smoking	Improve quality of diet Contain calorie intake Daily exercise of 30 mins/day	BMI 18.5-24.9 kg/m² (18.5-22.9 kg/m² if South Asian or Chinese)	<140/90 mm Hg (<130/80 mm Hg for those with CVD or diabetes)	Prevent or delay onset of diabetes HbA_{1c} <42 mmol/mol (<6%) FPG <5.5 mmol/l	HbA_{1c} 47-58 mmol/mol (6.5-7.5%)	Primary Prevention: consider Statin treatment if ≥10% risk based on QRISK2 **OR** Secondary Prevention: aim to reduce non-HDL chol by 40% and review in 3 months

FPG = Fasting Plasma Glucose | RPG = Random Plasma Glucose | BMI = Body Mass Index | Total Chol = Total Cholesterol | HDL = High Density Lipoprotein | TRIG = Triglycerides

History and examination following initiation or change of antipsychotic medication

Frequency: Normally supervised by the psychiatrist. As a minimum review those prescribed a new antipsychotic at baseline and at least once after 3 months.

Weight should be assessed weekly in the first six weeks of taking a new antipsychotic, as rapid early weight gain may predict severe weight gain in the longer term.

Subsequent reviews should take place annually unless an abnormality of physical health emerges. In these cases, appropriate action should be taken and/or the situation should be reviewed at least every 3 months.

At review

History: Seek history of substantial weight gain (e.g. 5kg), especially where this has been rapid (e.g. within 3 months). Also review smoking, exercise and diet. Ask about family history (diabetes, obesity, CVD in first degree <55 yrs male relatives and <65 yrs female relatives) and gestational diabetes. Note ethnicity.

Examination: Weight, BMI, BP, pulse.

Investigations: Fasting estimates of plasma glucose (FPG), HbA1c, and lipids (total cholesterol, non-HDL, HDL, triglycerides). If fasting samples are impractical then non-fasting samples are satisfactory for most measurements except for triglycerides.

ECG: Include if history of CVD, family history of CVD; where examination reveals irregular pulse (if ECG confirms atrial fibrillation, follow NICE recommendations **http://guidance.nice.org.uk/CG36**); or if patient taking certain antipsychotics (See SPC) or other drugs known to cause ECG abnormalities (eg erythromycin, tricyclic anti-depressants, anti-arrhythmics – see British National Formulary for further information).

Chronic Kidney Disease*: Screen those with co-existing diabetes, hypertension, CVD, family history of chronic kidney disease, structural renal disease (e.g. renal stones) routinely:

1. Monitor renal function: a) urea & electrolytes
   b) estimated glomerular filtration rate (eGFR)
2. Test urine: a) for proteinuria (dip-stick),
   b) albumin creatinine ratio (laboratory analysis)

*Presence of chronic kidney disease additionally increases risk of CVD: follow appropriate NICE guidelines on chronic kidney disease.

Monitoring: How often and what to do

Applies to patients prescribed antipsychotics and mood stabilizers.

	Baseline	Weekly first 6 weeks	12 weeks	Annually
Personal/FHx	■			■
Lifestyle Review[1]	■		■	■
Weight	■	■	■	■
Waist circumference	■			■
BP	■		■	■
FPG/HbA_{1c}	■		■	■
Lipid Profile[2]	■		■	■

[1]Smoking, diet, and physical activity [2]If fasting lipid profile cannot be obtained, a non-fasting sample is satisfactory

Monitoring table derived from consensus guidelines 2004, j clin. psych 65:2. APA/ADA consensus conference of 2004 published jointly in Diabetes Care and Journal of Clinical Psychiatry with permission from the Ontario Metabolic Task Force.

Specific lifestyle and pharmacological interventions

Specific lifestyle interventions should be discussed in a collaborative, supportive and encouraging way, taking into account the person's preferences:

- **Nutritional counselling:** reduce take-away and "junk" food, reduce energy intake to prevent weight gain, avoid soft and caffeinated drinks and juices, and increase fibre intake.
- **Physical activity:** structured education-lifestyle intervention. **Advise physical activity such as a minimum of 150 minutes of 'moderate-intensity' physical activity per week (https://bit.ly/37sPxXZ).** For example suggest 30 minutes of physical activity on 5 days a week.

If the patient has not successfully reached their targets after 3 months, consider specific pharmacological interventions:

Anti-hypertensive therapy: Normally GP supervised. Follow NICE recommendations **https://www.nice.org.uk/guidance/ng136**.

Lipid lowering therapy: Normally GP supervised. (If total cholesterol >9, non-HDL chol >7.5 or TG>20 (mmol/l), refer to metabolic specialist.) Follow NICE recommendations **http://www.nice.org.uk/nicemedia/pdf/CG67NICEguideline.pdf**.

Treatment of diabetes: Normally GP supervised. Follow NICE recommendations **http://www.nice.org.uk/CG87**.

Treatment of those at high risk of diabetes: FPG 5.5-6.9 mmol/l; HbA_{1c} 42-47 mmol/mol (6.0-6.4%)

Follow NICE guideline PH 38 Preventing type 2 diabetes: risk identification and interventions for individuals at high risk (recommendation 19) – **http://guidance.nice.org.uk/PH38**.

- Where intensive lifestyle intervention has failed **consider a metformin trial** (normally be GP supervised).
- Please be advised that **off-label** use requires documented informed consent as described in the GMC guidelines, **http://www.gmc-uk.org/guidance/ethical_guidance/14327.asp**. These GMC guidelines are recommended by the MPS and MDU, and the use of metformin in this context has been agreed as a relevant example by the Defence Unions.
- Adhere to British National Formulary guidance on safe use (in particular ensure renal function is adequate).
- Start with a low dose e.g 500mg once daily and build up, as tolerated, to 1500–2000mg daily.

Review of antipsychotic and mood stabiliser medication:

Discussions about medication should involve the patient, the general practitioner and the psychiatrist. Should be a priority if there is:

- Rapid weight gain (e.g. 5kg <3 months) following antipsychotic initiation.
- Rapid development (<3 months) of abnormal lipids, BP, or glucose.

The psychiatrist should consider whether the antipsychotic drug regimen has played a causative role in these abnormalities and, if so, whether an alternative regimen could be expected to offer less adverse effects:

- As a first step prescribed dosages should follow BNF recommendations; rationalise any polypharmacy.
- Changing antipsychotic medication requires careful clinical judgment to weigh any benefits against the risk of relapse of the psychosis.
- An effective trial of medication is considered to be the patient taking the medication, at an optimum dosage, for a period of 4-6 weeks.
- If clinical judgment and patient preference support continuing with the same treatment, then ensure appropriate further monitoring and clinical considerations are carried out regularly.

It is advised that all side effects to antipsychotic medication are regularly monitored, especially when commencing a new antipsychotic medication **(GASS questionnaire http://mentalhealthpartnerships.com/resource/glasgow-antipsychotic-side-effect-scale/)**, and that any side effects, as well as the rationale for continuing, changing or stopping medication is clearly recorded and communicated with the patient.

The Psychiatrist should maintain responsibility for monitoring the patient's physical health and the effects of anti-psychotic medication for at least the first 12 months or until the person's condition has stabilised, whichever is longer. Thereafter, the responsibility for this monitoring may be transferred to primary care under shared care arrangements.

Discuss any non-prescribed therapies the patient wishes to use (including complementary therapies) with the patient, and carer if appropriate. Discuss the safety and efficacy of the therapies, and possible interference with the therapeutic effects of prescribed medication and psychological treatments.

Public Health England

NAS NATIONAL AUDIT OF SCHIZOPHRENIA CCQI

NHS

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Healthcare Quality Improvement Partnership (HQIP)
National Collaborating Centre for Mental Health (NCCMH)
Diabetes UK
Rethink Mental Illness

RC PSYCH ROYAL COLLEGE OF PSYCHIATRISTS

RCGP Royal College of General Practitioners

Royal College of Physicians

Royal College of Nursing

RCS ADVANCING SURGICAL STANDARDS

FACULTY OF PUBLIC HEALTH

UCLPartners Academic Health Science Partnership

HQIP Healthcare Quality Improvement Partnership

NATIONAL COLLABORATING CENTRE FOR MENTAL HEALTH

DIABETES UK CARE. CONNECT. CAMPAIGN.

Rethink Mental Illness.

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