

Physical Health assessment for people with serious mental illness *at a glance*

People with severe mental illness (SMI) have poorer physical health than the general population and die on average 15-20 years earlier than people without a mental health condition (HM Government, 2011). This is mostly due to physical health problems which are not diagnosed or managed efficiently (HM Government, 2011). Being in contact with a mental health service **does not** always mean that people with an SMI have a physical health assessment, have their physical health monitored or receive information, support and lifestyle interventions to improve their overall wellbeing. Nurses from all fields have unparalleled opportunities to improve the physical health conditions of SMI patients both in inpatient and community settings (Gov.uk, 2016). To make these improvements and ensure parity of esteem nurses **from all fields and specialisms must capitalise** on every contact they have with **people with SMI** to improve early detection, evidence-based care and interventions.

Physical and mental health are inextricably linked and a holistic approach is needed to manage both. There is strong evidence to suggest that having a long-term mental health condition can be a significant risk factor for poor physical health and long term physical health can have a detrimental impact on peoples' mental health (HM Government, 2011). Medically unexplained physical symptoms are often the basis of poor mental health and are estimated to cost the NHS over 3 billion pounds a year (Birmingham et al., 2010). Comorbid mental health problems and long-term conditions increase healthcare costs by 45% per person (Naylor et al., 2016). Key issues include increased respiratory diseases, diseases of the liver, cardiovascular disease and ischemic heart disease. Physical health problems are also highly

prevalent amongst people with eating disorders, personality disorders, drug and alcohol use disorders, or untreated depression or anxiety.

Health risk behaviours are common among people with SMI. Including smoking, poor diet and sedentary lifestyles which lead to obesity and hyperlipidaemia (Glasper, 2016). Yet, offers of timely access to physical health assessments and interventions are often inconsistent. People with SMI are less likely to report accidents or injury and access medical care leaving symptoms untreated. Individuals with serious mental illness are found to be less likely to engage with healthcare services despite increased risk factors associated with their illness and negative attitudes, diagnostic shadowing whereby physical symptoms are put down to an individual's mental illness and stigma often prevents people from seeking health advice (Nash, 2014). People with SMI are at increased risk of asthma, obesity, diabetes, chronic obstructive pulmonary disease (COPD), coronary heart disease (CHD), Stroke and Heart Failure (Public Health England, 2018). In addition, antipsychotic medication is proven to increase food intake, impair glucose intolerance and alter people's level of physical activity (Lord et al., 2017) 50% of patients starting an antipsychotic medication gain more than 7% of their body weight in the first 12 months (RCPsych et al., 2016). Contact with any health service should be an opportunity to improve both mental and physical health. Healthcare professionals can make brief interventions or carry out a full physical health assessment as appropriate.

For nurses this means education to improve assessment and screening to identify physical health problems and interventions to improve outcomes and reduce health inequalities, closing the gap and improving quality of life (NHS taskforce, 2016).

Barriers for staff delivering physical healthcare in SMI patients include a lack of knowledge and training in communication and negotiation skills and a lack of integrated services (McBain et al., 2018). NHS England has introduced the **Five Year Forward View for Mental Health** (NHS England, 2016). This aims to ensure that by 2020, 280,00 people living with SMI have their physical health needs met expanding access to evidence-based detection, assessment and intervention creating integrated mental and physical health services nationally by April 2021 (NHS England, 2019). However, there is a lack of understanding amongst healthcare providers on how to meet the complex needs of people with SMI (Ross et al., 2016). All healthcare professionals have a part to play in delivering integrated care to manage the needs of this population group (Kings Fund, 2016).

Brief intervention

Make Every Contact Count (MECC) is an approach to behavior change that uses any interaction with a healthcare professional as an opportunity to engage with support to make positive changes to their physical and mental health (Public Health England (PHE), 2016). **MECC supports opportunistic delivery of consistent, concise healthy lifestyle information enabling patients to engage in conversations about their health (PHE, 2016).**

Carrying out a full assessment

Physical health assessments are necessary to address calls to improve commissioning services and recommendations to implement physical health

interventions to reduce the inequalities in health amongst people with SMI (Gov.uk 2011). The Lester Tool (Rcpsych, 2014) has been designed to help frontline staff to make assessments of cardiac and metabolic health to reduce the mortality for people with an SMI and ensure that a person's physical and mental health conditions are jointly addressed. The Lester UK Adaptation Tool (Rcpsych, 2014) guides health care workers through the assessment of a person's smoking history, body mass index, lifestyle, blood pressure, glucose regulation and blood lipids, offering appropriate targets and interventions to improve that person's physical health. This should be used as part of a full physical health assessment.

The physical health assessment gives a baseline for future comparison, monitors previously diagnosed physical illnesses, monitors current physical condition, prevents increased mortality by early intervention and creates opportunities to liaise with the inter-professional team to select the best intervention or treatment (Nash, 2014). To make the Lester tool a valuable resource in reducing cardiovascular disease-associated morbidity and mortality it is vital that all staff are competent in their roles and responsibilities for physical health care. For a full physical health assessment healthcare practitioners should:

- Gain informed consent, they need to know exactly what will happen.
- Confirm the patients' specific requirements and reason for assessment
- Consider the patients general appearance – state of dress, appropriate clothing, hygiene, cleanliness i.e. unkemptness
- Consider posture, gait and mobility

- Assess the patient's behaviour, orientation, evidence of any agitation and level of fatigue
- Ask the patient if they have any pain or difficulties in breathing. Assess for any audible sounds like wheezing, breathlessness or cough.
- Ask the patient if they have recently started antipsychotic medication. A physical health assessment should be carried out as a baseline for those prescribed new antipsychotic medications and then **at** least once every 3 months (Crawford et al., 2014)
- **Ask the patient if they have noticed any side effects of **their** medication.** Antipsychotics are known to cause some side effects such as akathisia (an unpleasant restless feeling with involuntary movements) or dystonia (abnormal muscle contractions), dry mouth, dizzy or light-headedness, blurred vision, constipation and weight gain (**Stroup & Gray, 2018**). Rarely other more serious side effects can occur such as changes in blood sugar levels or blood lipid levels, neuroleptic malignant syndrome and cardiac arrhythmias (**NICE, 2020**). Antipsychotics are associated with increased mortality in elderly people with dementia. **Record the date of the patients last medication review.**
- Ask the patient if they smoke. For smokers how many a day, for how many years have they been smoking and triggers/reasons for smoking? People with schizophrenia who smoke have a significantly higher rate of COPD than the general population (**Himmelhoch et al., 2004**). Additionally, the effectiveness of antipsychotic medication can be impeded by smoking in 30-50% higher doses to achieve a therapeutic effect (Tsuda et al, 2014). If a patient smokes have

they considered giving up or tried to give up in the past? Do they need any additional support with this? Consider referral to smoking cessation services.

- Ask the patient about their weekly alcohol consumption. Record weekly intake **even if this is zero**. Alcohol dependence is more common in men (6%) than women (2%) and increased in people in lower socio-economic groups (Gov.uk, 2016). Men and women are recommended not to drink more than 14 units a week regularly (Gov.uk, 2016). Long-term alcohol consumption can lead to around 60 different types of diseases such as; mouth, throat and oesophageal cancers, premature ageing, high blood pressure, rapid pulse and heart failure. Impaired kidney function and liver damage. Inflammation of the stomach and pancreas and reduced fertility and alcohol-specific causes are equivalent to 12.2 deaths per 100,000 population (Gov.uk, 2017). Ask the patient if they would like to reduce their weekly alcohol intake, assess readiness for change and refer to appropriate services for support with this.
- Patients who use illicit substances are more likely to experience mental health problems and people with mental health problems are more likely to take illicit substances (Collins, Drake and Deacon, 2013). The coexistence of a mental health problem and drug and/or alcohol misuse is defined as 'dual diagnosis'. Ask the patient if they take any substances and record the answer. A detailed history is important to assess patterns of substance misuse (Collins, Drake & Deacon, 2013). Ask the patient their age at first use, duration of use, amount, type and strength of substance used over a period of time, the preferred method, triggers and the patient's own subjective experience of substance use. Refer to appropriate services if the patient would like any support with this.

- Sexual health is an important aspect of physical health and evidence suggests that individuals with mental health problems are at increased risk of poorer sexual health (Carey et al., 2006; Matevoysan, 2009). In particular, those with mental health problems are at higher risk of STI's, HIV and unintended pregnancies (Carey et al., 2007; Matevoysan, 2009). A known side effect of antipsychotic medication is sexual dysfunction. Studies have found males and females both experience symptoms such as decreased libido, erectile dysfunction, ejaculatory disorder, arousal disorder and reported vaginal dryness (Park, Kim & Lee, 2012). Also, mental illness can affect perceptions of self-image and induce risk-taking behaviours (Collins, Drake and Deacon, 2013). However, several studies have shown that nurses often do not discuss sexual health matters with patients for several reasons mostly, lack of knowledge, conservative attitudes, embarrassment, fear of offending and lack of time (Matevoysan, 2009; Quinn and Browne, 2009). Discuss sexual health with the patient, offer advice, consider medication review and refer to specialist services if appropriate.

To carry out a physical health assessment Equipment is required (Table 1). Registered Nurses have a duty of care to their patients (NMC, 2018) and therefore must always utilise evidence-based practice. The procedure for carrying out a full physical examination can be seen in table 2.

Table 1. Equipment

- Sphygmomanometer (digital if preferred)
- Stethoscope
- Tape measure
- Scales
- Height measuring stick
- Blood bottles for lipid profile and HBA1C
- Vacutainer
- Tourniquet
- Cotton wool swab
- ECG machine and leads
- Pulse oximetry
- Urine dipstick
- Urine bottle

Table 2. Physical health assessment procedure

- Wash hands
- Explain the full procedure to the patient
- Talk to the patient throughout the procedure and reassure
- Take the patients' blood pressure using either a manual or digital sphygmomanometer. If the blood pressure (BP) is 140/90mmHg or higher take a second measurement during the consultation. If the patients' blood

pressure remains at 140/90mmHg or higher refer to specialist care (NICE, 2019) Patients with diabetes have a target BP below 130/80 mmHg (Nash, 2014)

- Consider an ECG assessment. This is recommended for mental health patients who have started or receive antipsychotic medications. For example, a baseline ECG is taken when a patient starts on Clozapine. Only healthcare professionals with specific competencies can undertake ECG's. If this is not within the scope of practice refer to a doctor or ECG technician (Nash, 2014)
- Help the patient if necessary to disrobe and preserve dignity. Ensure all cables and electrode pads specific to the ECG machine are in date and that the machine has enough paper. Ensure the skin is clean and dry and remove any access hair
- Place the electrodes on the skin. Ensure that the leads connect with colour-coded inputs. Select the lead the reading will be taken from. Follow local clinical standards and policy. Place used electrodes and alcohol wipes in the appropriate waste bin. Record findings.
- Ask the patient if they have any underlying respiratory conditions. Take a pulse oximetry reading. Use an alcohol wipe to clean the area and clip the sensor to the chosen finger. Acceptable saturation levels are between 96-100% (Blows, 2018). Record saturations.
- The respiratory rates is the number of breathing cycles per minutes (Blows, 2018). Record the patients respiration rate for 1 minute as a baseline assessment of the respiratory system and lung function. An acceptable rate is between 12-18 resps in one minute (Blows, 2018)
- The patient should be positioned upright if possible (this makes lung

expansion easier) (Moore, 2007). Ensure that the patient has not briskly walked or run in the last 5 minutes. Count each respiration the patient makes for one minute (respiration is one inspiration and one expiration).

- Does the patient have any difficulty breathing? Listen for any abnormal sounds such as wheezing or crackling – record these. Does breathing cause any pain? (Dogherty & Lister, 2015). Observe the patient's lips and extremities for colour changes (Cyanosis, a bluish colour of the skin is considered a sign of late respiratory dysfunction). Report any abnormalities to GP or specialist services and record findings.
- Test urine using a standard reagent strip if indicated for diabetes or to assess for a Urinary Tract Infection. Report any abnormalities and record findings.
- Ask the patient to remove shoes and record weight in kilograms and measure height in centimeters. Use a chart or BMI calculator to calculate BMI. Patients with a BMI greater than 25 should be given lifestyle advice including exercise and diet appropriate to classification. Editor, please add The International Classification of adult underweight, overweight and obesity according to BMI (WHO, 2006). Problems associated with obesity are: increased mortality due to serious medical conditions linked to being overweight. These are diabetes, hypertension, angina pectoris, myocardial infarction and congested cardiac failure.
- Check when the patient last had a blood test and which samples were taken. Depending on local policy carry out venepuncture for lipid profile test and HBA1C
- Triglycerides are the main fat molecules carried in plasma these must be transported in several types of lipoproteins (a combination of fat and protein).

Low-density lipoprotein LDL is known as 'bad cholesterol' these particles transport lipid into arterial walls causing plaques which often proceeds coronary artery disease. HDL known as 'good cholesterol' particles collect fat removed from cells of the artery wall, reducing plaque formation. Cholesterol ratio is calculated by dividing the total cholesterol by the HDL value. This can be used to predict the risk of a heart attack, high risk is associated with a ratio greater than 5.

- HBA1C tells the patients average blood sugar over the past 2 to 3 months to test for diabetes

- There are several different further assessment tools and scales to aid physical health assessment to consider these to assess the holistic needs of each patient

Malnutrition Universal Screening Tool (MUST) (BAPEN, 2018) –useful in caring for malnourished patients

The Glasgow Coma scale (Teasdale & Jennet, 1974) – useful when caring for someone with epilepsy, delirium or loss of consciousness

The Waterlow pressure ulcer risk assessment (Waterlow, 2005) – people with poor skin integrity, extreme weight loss, anorexia, loss of mobility

- Give lifestyle advice; patients with high cholesterol are at greater risk of cardiovascular disease. Encourage a healthy well-balanced diet. Women should have 2000kcal per day and men 2500kcal this includes all food and drink (Gov.uk, 2016). Discuss ways to reduce salt and sugar intake. Editor, please include PHE Eatwell plate
- Discuss fluid intake. Ask the patient if they have any problems passing urine or are experiencing any symptoms of constipation or diarrhea

- Monitor body temperature to assess for any signs of infection. Core temperature range is between 36.5 – 37.5 C (NICE, 2013) this provides optimum conditions for tissue metabolism (Blows, 2018). A body temperature higher than 37.5 C can indicate signs of infection. Record findings and refer if appropriate
- Discuss sleeping pattern, any difficulties in sleeping or change in sleeping routine.
- Ask the patient how much physical exercise they do per week. It is recommended that adults age 19-64 aim for a least 150 minutes of moderate-intensity activity in bouts of 10 minutes or more each week (Gov.uk, 2016). Lack of physical activity in mental health patients may be caused by several factors. Some medications have a sedative side effect. Patients may experience a lack of motivation and reduced confidence in participating in exercise. Limited finances may also influence choices (Collins, Drake and Deacon, 2013). Discuss options and consider social prescribing to community groups, local non-clinical and statutory services for practical and emotional support. Social prescribing schemes involves a variety activity provided by the community and voluntary sector organisations including arts activities, gardening, group learning, cookery, health eating and a range if sports.
- Clean all equipment after use and advise the patient to attend a physical health assessment each year.

Poor physical health can have an increased risk of developing mental health problems and poor mental health can have a significant impact on physical health. Nurses should use every health care interaction as an opportunity to ensure that both patients mental and physical health are jointly addressed.

Reference List

BAPEN (2018) Malnutrition Universal Screening Tool (MUST). Accessed at <https://www.bapen.org.uk/screening-and-must/must/must-toolkit/the-must-itself> (Accessed on 26/02/20)

Bermingham et al (2010) The cost of somatisation among the working-age population in England for the year 2008–09. *Mental Health in Family Medicine* Vol 7, no 2, pp 71–84

Blows, W., 2018. *The Biological Basis Of Clinical Observations*. Oxford: Routledge.

Carey, M., Ravi, V., Chandra, P., Desai, A. and Neal, D. (2006). Prevalence of HIV, Hepatitis B, Syphilis, and Chlamydia Among Adults Seeking Treatment for a Mental Disorder in Southern India. *AIDS and Behavior*, 11(2), pp.289-297.

Collins, E., Drake, M. and Deacon, M. (2013). *The physical care of people with mental health problems*. 1st ed. London: SAGE.

Crawford, M., Jayakumar, S., Lemmey, S., Zalewska, K., Patel, M., Cooper, S. and Shiers, D. (2014). Assessment and treatment of physical health problems among people with schizophrenia: national cross-sectional study. *British Journal of Psychiatry*, 205(6), pp.473-477.

Dougherty., L. Lister., S (2015) *The Royal Marsden Manual of Clinical Nursing Procedures*. Ninth Edition. Wiley Blackwell. Oxford.

England.nhs.uk. (2016). [online] Available at: <https://www.england.nhs.uk/wp-content/uploads/2016/02/Mental-Health-Taskforce-FYFV-final.pdf> [Accessed 12 Jan. 2020].

Glasper, A. (2016). Caring for adults with severe mental illness and physical health problems. *British Journal of Nursing*, 25(22), pp.1266-1267.

GOV.UK. (2020). *The Eatwell Guide*. [online] Available at: <https://www.gov.uk/government/publications/the-eatwell-guide> [Accessed 13 Jan. 2020].

GOV.UK. (2016). *Health matters: getting every adult active every day*. [online] Available at: <https://www.gov.uk/government/publications/health-matters-getting->

every-adult-active-every-day/health-matters-getting-every-adult-active-every-day
[Accessed 12 Jan. 2020].

Gov.uk. (2011). No Health without Mental Health. [online] Available at:
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attach
ment_data/file/138253/dh_124058.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/138253/dh_124058.pdf) [Accessed 13 Jan. 2020].

HM Government, Department of Health (2011) No health without Mental Health: A
cross-government mental health outcomes strategy for people of all ages. Available
at
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attach
ment_data/file/213761/dh_124058.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/213761/dh_124058.pdf) (Accessed on 09/03/2020)

Himelhoch, S., Lehman, A., Kreyenbuhl, J., Daumit, G., Brown, C. and Dixon, L.
(2004). Prevalence of Chronic Obstructive Pulmonary Disease Among Those With
Serious Mental Illness. *American Journal of Psychiatry*, 161(12), pp.2317-2319.

Lord, C., Wyler, S., Wan, R., Castorena, C., Ahmed, N., Mathew, D., Lee, S., Liu, C.
and Elmquist, J. (2017). The atypical antipsychotic olanzapine causes weight gain by
targeting serotonin receptor 2C. *Journal of Clinical Investigation*, 127(9), pp.3402-
3406.

McBain, H., Lamontagne-Godwin, F., Haddad, M., Simpson, A., Chapman, J., Jones,
J., Flood, C. and Mulligan, K. (2018). Management of type 2 diabetes mellitus in

people with severe mental illness: an online cross-sectional survey of healthcare professionals. *BMJ Open*, 8(2), p.e019400.

Matevosyan, N. (2009). Reproductive Health in Women with Serious Mental Illnesses: A Review. *Sexuality and Disability*, 27(2), pp.109-118.

Moore., T. (2007) Respiratory assessment in adults. *Nursing Standard*. Vol 21 (49)

Nash, M. (2014). *Physical health and well-being in mental health nursing*. 2nd ed. Maidenhead: McGraw-Hill.

Naylor et al., (2016) Bringing together physical and mental health: a new frontier for integrated care. London: The King's Fund

National Institute for Health and Care Excellence NICE (2019) Hypertension in adults: diagnosis and management NICE guideline (NG136) Accessed at <https://www.nice.org.uk/guidance/ng136/chapter/Recommendations#diagnosing-hypertension> Accessed on 26/02/20

National Institute for Health and Care Excellence NICE (2020) Antipsychotic drugs. Available at: <https://bnf.nice.org.uk/drug-class/antipsychotic-drugs.html> (Accessed on 09/03/20)

National Institute for Health and Care Excellence NICE (2013) Surgical site infection. Quality standard (QS49) Available at:

<https://www.nice.org.uk/guidance/qs49/chapter/quality-statement-3-patient-temperature> (Accessed on 10/03/20)

Ons.gov.uk. (2020). *Alcohol-related deaths in the UK - Office for National Statistics*. [online] Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/bulletins/alcoholrelateddeathsintheunitedkingdom/registeredin2014> [Accessed 13 Jan. 2020].

Park, Y., Kim, Y. and Lee, J. (2012). Antipsychotic-Induced Sexual Dysfunction and Its Management. *The World Journal of Men's Health*, 30(3), p.153.

Public Health England (2018) Technical supplement Severe mental illness and physical health inequalities. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/746946/SMI_and_physical_health_inequalities_technical_report_August_2018.pdf (Accessed on 09/03/20)

Quinn, C. and Browne, G. (2009). Sexuality of people living with a mental illness: A collaborative challenge for mental health nurses. *International Journal of Mental Health Nursing*, 18(3), pp.195-203.

Ramsey, S. (2020). *NHS England » NHS Long Term Plan*. [online] England.nhs.uk. Available at: <https://www.england.nhs.uk/long-term-plan/> [Accessed 12 Jan. 2020].

Rcpsych.ac.uk. (2014). [online] Available at: https://www.rcpsych.ac.uk/docs/default-source/improving-care/ccqi/national-clinical-audits/ncap-library/ncap-e-version-nice-endorsed-lester-uk-adaptation.pdf?sfvrsn=39bab4_2 [Accessed 13 Jan. 2020].

Ross, L., Vigod, S., Wishart, J., Waese, M., Spence, J., Oliver, J., Chambers, J., Anderson, S. and Shields, R. (2016). *Barriers and facilitators to primary care for people with mental health and/or substance use issues: a qualitative study*.

Royal college of Psychiatrists, Academy of Medical Royal Colleges, Royal college of general practitioners (2016) *Improving Physical health of adults with severe mental illness: Essential actions*.

Stroup, T., Gray, N (2018) *Management of common adverse effects of antipsychotic medications*. *World Psychiatry* 17 (3): 341-356

The King's Fund. (2016). *Bringing together physical and mental health*. [online] Available at: <https://www.kingsfund.org.uk/publications/physical-and-mental-health> [Accessed 12 Jan. 2020].

Teasdale G, Murray G, Parker L, Jennett B (1979). "Adding up the Glasgow Coma Score". *Acta Neurochir Suppl (Wien)*. **28** (1): 13–6. doi:10.1007/978-3-7091-4088-8_2. ISBN 978-3-7091-4090-1. PMID 290137.

Tsuda, Y., Saruwatari, J. and Yasui-Furukori, N. (2014). Meta-analysis: the effects of smoking on the disposition of two commonly used antipsychotic agents, olanzapine and clozapine. *BMJ Open*, 4(3), p.e004216.

Waterlow (2005) The Waterlow Score Accessed at http://judy-waterlow.co.uk/waterlow_score.htm Accessed on 26/02/20