Physical Health in Mental Health Hospitals
Protocol

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Introduction
An estimated 10–20 years of potential life is lost in severe mental illness (SMI) and the increased risk of premature mortality is well established.\textsuperscript{123456} Studies have consistently reported a two to three fold increase in mortality ratios in those with SMI when compared to the general population. This is a three-fold risk of premature mortality compared with the general population.\textsuperscript{123456} Despite substantial evidence for these health inequalities, recent research suggests this gap continues to widen.\textsuperscript{6}

The majority of preventable deaths are due to chronic physical health conditions such as cardiovascular, respiratory and metabolic disease.\textsuperscript{7} Alongside this high prevalence of preventable long-term conditions there is also substantial evidence of inequities in access to healthcare. Individuals living with mental health conditions are less likely to receive preventative care, a diagnosis of a long-term disease or, to receive treatment for an identified condition.\textsuperscript{8} Treatment inequities have been demonstrated across a wide range of physical health conditions including: hyperlipidaemia, cancer, diabetes, arthritis, stroke and several surgical procedures.\textsuperscript{9} Together this evidence suggests there are significant missed opportunities to identify and treat co-occurring physical health conditions.

Recent estimates show that 63% of occupied inpatient bed stays in a mental health setting are for patients with psychosis and average length of stay is 31 days.\textsuperscript{10} An inpatient setting provides an opportunity for more intensive assessment and monitoring of a patient’s health including both their mental and physical health.

\textsuperscript{1} Osborn DP, Levy G, Nazareth I, Petersen I, Islam A, King MB: Relative risk of cardiovascular and cancer mortality in people with severe mental illness from the United Kingdom’s General Practice Research Database. Arch Gen Psychiatry. 2007, 64: 242-249. 10.1001/archpsyc.64.2.242
\textsuperscript{5} D Lawrence , KJ Hancock , S Kisely . The gap in life expectancy from preventable physical illness in psychiatric patients in Western Australia: retrospective analysis of population based registers. BMJ. 346(2013):f2539
\textsuperscript{6} Saha S, Chant D, McGrath J: A systematic review of mortality in schizophrenia: is the differential mortality gap worsening over time?. Arch Gen Psychiatry. 2007, 64: 1123-1131. 10.1001/archpsyc.64.10.1123.
\textsuperscript{8} Lawrence, D, Kisely, S (2010). Inequalities in healthcare provision for people with severe mental illness. *Journal of Psychopharmacology* 24, 61–68
\textsuperscript{9} Docherty, M., Stubbs, B., & Gaughran, F. (2016). Strategies to deal with comorbid physical illness in psychosis. Epidemiology and Psychiatric Sciences, 25(3), 197-204.
\textsuperscript{10} https://www.nhsbenchmarking.nhs.uk/projects/mental-health-inpatient-and-community-services
physical health status. It is especially valuable as an opportunity to intervene in the physical health of a group of people who may otherwise be hard to reach. Individuals in mental health inpatient units are likely to have a higher burden of acute physical health conditions than community-based patients. Relapse of a serious mental disorder is frequently associated with self-neglect and misadventure which can precipitate the need for an inpatient stay and be associated with deterioration in physical health. Systematic reduction in inpatient beds over recent years and community management may also mean that coexisting physical health conditions may be more complicated by the time the patient is admitted to a mental health unit.

Inpatient wards have an important role in identifying risk factors for established long term conditions. Additionally, where nearly half of those with SMI will have a long-term condition, the ability to identify and safely monitor and manage those long term conditions throughout admission is essential. Inadequate assessment and management of physical co-morbidities can impact on the severity of psychiatric symptoms, length of general medical or mental health inpatient stay, recovery from a relapse in mental illness and ultimately, patient safety.  

Despite strong arguments to ensure that mental health inpatient units are resourced to ensure high quality of care for a patient’s physical and mental health needs, the quality and comprehensiveness of medical care for psychiatric inpatients remains variable. Mental health nurse training provides little opportunity to develop and sustain core physical health competencies. Clinical separation of psychiatry from other medical specialties can lead to rapid deskilling of the medical workforce in psychiatry. Structural barriers include physical separation of mental health inpatient units from physical health care settings and lack of access to basic equipment and facilities to assess and monitor physical health in mental health settings.

There have been a number of efforts to highlight and address the disparities in access to physical health care faced by individuals living with mental health. Several reports and policies have focused on inpatient settings. One of the requirements of a recent 5-year national CQUIN was for inpatient teams to systematically screen and intervene in cardiometabolic risk factors but challenges were reported in developing the skills of staff, as well as the equipment and clinical processes required to change and sustain changes in practice.

In October 2016, the Academy of Medical Royal Colleges Report on ‘Improving the physical health of adults with severe mental illness: essential actions’ included

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11 Naylor et al. (2016) Bringing Together Physical and Mental Health: A New Frontier for Integrated Care
detailed recommendations on how the physical health of people admitted to inpatient mental health units could be better supported, and how this opportunity could be used to improve the patients’ physical health. Recommendations included the employment of appropriately trained staff to monitor and manage physical conditions with support from specialists; use of the National Early Warning Scoring system (NEWS) with appropriate methods to facilitate the recognition and management of the deteriorating patient; as well as the promotion of healthy living through better nutrition, good oral health, smoking cessation and exercise.

Implementation of these recommendations has been variable. Some NHS Trusts have employed specialist nurses whose roles include promotion of health and wellbeing and/or physical health checks. Others have arranged for weekly ward visits from a Liaison Physician who is a specialist in acute medical care. The NEWS (or MEWS) is implemented inconsistently. There is insufficient specialist support for inpatients with long-term conditions such as diabetes or those receiving anticoagulation. Evidence is lacking about whether national policy and local initiatives have achieved sustained changes in practice or impacted on outcomes of patients cared for in these settings.

Guidelines and standards
- Physical Health in Mental Health” - RCPsyCh OP 67 (2009)
- “Improving the Physical Health of adults with Severe Mental Illness: essential actions” RCPsyCh/RCN/AMRoC OP 100 (2016)
- “Improving the Physical Health of people with mental health problems: actions for mental health nurses” (NHSE May 2016)
- Management of Diabetes in adults and children with psychiatric disorders in inpatient settings (Diabetes UK 2017)
- NHSE CQUIN Standards 2017/19
- NHSE Contract Standards 2019/20
- NHS Population Screening: improving access for people with severe mental illness (PHE March 2019)

12 Improving the Physical Health of adults with Severe Mental Illness: essential actions” RCPsyCh/RCN/AMRoC OP 100 (2016)
Standards from Royal College Quality Networks. Royal College of Psychiatrists (RCPsych) CCQI Quality Standards – accreditation standards for specific networks:

https://www.rcpsych.ac.uk/improving-care/ccqi/quality-networks-accreditation

- AIMS (Inpatient Services – assessment and triage wards )
- AIMS-WA (Working Age Adult Inpatients)
- LDQN (Learning Disability Inpatients Quality Network?)
- AIMS Rehab (Inpatient Rehabilitation Services)
- Inpatient Older Adult Mental Health Services
- ACOMHS (Adult Community Mental Health Services)
- HTAS (Home Treatment Accreditation Scheme)
- PICU-QN (Psychiatric Intensive Care Unit Quality Network)
- EIPN (Early Intervention In Psychosis Network)
- PQN (Perinatal Quality Network – standards for community services)
- PQN (Perinatal Quality Network – standards for inpatient services)
- QNFMHS (Quality Standards for Forensic Mental Health services)

- Care Quality Commission: Smoke free policies in mental health inpatient services
- Care Quality Commission: Physical healthcare in mental health settings

**NICE Guidelines and quality standards**

- Bipolar disorder: assessment and management (CG185)
- Borderline personality disorder: recognition and management (CG78)
- Psychosis and schizophrenia in adults: prevention and management (CG178)
- Coexisting severe mental illness (psychosis) and substance misuse: assessment and management in healthcare settings (CG120)
- Decision-making and mental capacity (NG108)
- Violence and aggression: short-term management in mental health, health and community settings (NG10)
- Depression in adults with a chronic physical health problem: recognition and management (CG91)
- Depression in adults: recognition and management (CG90)
- Mental health problems in people with learning disabilities: prevention, assessment and management (NG54)
- Drug misuse in over 16s: opioid detoxification (CG52)
- Autism spectrum disorder in adults: diagnosis and management (CG142)
- Delirium: prevention, diagnosis and management (CG103)
- Quality standard (QS159): Transition between inpatient mental health settings and community or care home settings
Aim and objectives

Aim
The aim of this study is to identify and explore remediable factors in the physical healthcare of adult patients admitted to an inpatient mental health facility.

Objectives

Organisational
To review the provision of services, organisational structures and the policies in place to facilitate the delivery of care to meet the physical health needs of this group of patients. Focus will be placed on the systems, processes and facilities in place for the:

1. Identification, assessment and monitoring of patients with (or at risk of developing) physical health conditions, including withdrawal from substance misuse
2. Safe, appropriate and effective treatment of physical health conditions including access to preventative care and treatment for acute and long-term physical health conditions
3. Support for patient and carer involvement in care-planning, health education and self-management of potential or identified physical health needs
4. Safe and continuous care including the pathways for (and actual ) follow-up of identified physical health needs throughout the patient’s inpatient stay and on discharge from a mental health inpatient admission including:
   - Timely escalation in the level and/or intensity of care provided to individuals with identified physical health conditions including transfer to other acute care settings
   - Access to appropriate expertise and services for healthcare in or outside of the inpatient unit for the care of acute and long-term physical health conditions
- Discharge-planning and follow up arrangements for identified physical health needs by primary and secondary physical health care providers
- Mechanisms to support continuity of care over the entire course of an admission including transfers to other care settings

5. Communication and sharing of relevant information, including physical health history, care plans and medication records
   - Between the patient, clinical teams and (as appropriate) carers/family
   - Between different healthcare providers: general hospitals, primary care, dentists, allied healthcare professionals, community mental health providers and inpatient mental health providers

6. Safe prescribing and monitoring of medication including reconciliation in event of transfers between care settings and at point of discharge

7. Training, competences and the confidence of healthcare professionals in the delivery of physical healthcare for those who are at risk of or have a known physical health condition/s

8. Application of the Mental Capacity Act: has the MCA been used appropriately in decisions and actions taken in relation to the physical health care, needs or risks of the patient

**Clinical**

To identify and review remediable factors in the overall quality of care provided, with a particular focus on the following areas:

1. Access to physical health care within the inpatient mental health setting including
   - Identification, monitoring and management of modifiable disease risk factors, the prevention of physical illness and the management of long-term physical conditions throughout admission
   - Timely referral to (and review by) specialist physical health care provider where appropriate

2. Communication and sharing of essential information, including medical history of physical health, care plans and medication records
   - Between the patient, clinical teams and as appropriate carers/family
   - Between different healthcare providers: general medical hospitals, primary care, dentists, allied health professionals, community mental health providers, inpatient mental health providers

3. Evidence of inappropriate or delayed interventions and/or escalation of care to another specialty or physical healthcare setting

4. Evidence of any missed opportunities to intervene in patients at risk of developing a long term physical health condition

5. Management of medications including reconciliation and possible interactions, concordance, adherence, therapeutic drug monitoring and appropriate counselling
6. Care planning with community, primary and secondary care for safe discharge and arrangement of follow up for identified physical health needs

7. Application of the Mental Capacity Act 2005 and assessment of capacity and consent for treatment for physical health needs

8. The overall standard of care and treatment provided and its equivalence where possible, to care received by patients without mental health conditions

**Methods**

**Participating hospitals**

All NHS, independent or not-for-profit inpatient mental health hospitals in the UK, where patients are receiving healthcare for a time limited period for a primary mental disorder with expectation of discharge to an alternative setting will be expected to participate.

This excludes:

- Specialist services but not secure/ forensic settings or inpatient services for deaf people
- Other tertiary mental health commissioned services including eating disorders, neuropsychiatry, brain injury rehabilitation units, dedicated learning disability, mother & baby units, tier 4 personality disorder inpatient settings.
- Long-term care facilities including residential care homes and nursing homes
- Home-treatment periods of care that do not involve an admission to an inpatient setting over the episode of care
- Crisis houses

**Study population**

Clinical data will be collected on patients aged 18 years and older who were admitted to a mental health hospital for a period of >1 week during the study period of 1st November 2018- 31st October 2019, and who had a one or more of the following concomitant physical health conditions* recorded on discharge from the mental health facility:

- Chronic obstructive pulmonary disease/asthma
- Cardiovascular disease
- Diabetes
- AND/OR: The physical health condition of the patient necessitated an acute transfer to an acute general (physical health hospital) for assessment / treatment / stabilisation
- AND/OR: The patient died onsite in the mental health hospital or within 30 days of discharge from the mental health hospital

*Physical health condition refers to pre-existing or newly identified health conditions requiring ongoing assessment / treatment.

**Exclusions**
• Suicides, homicides and self-harm related deaths
• Patients with dementia, other organic brain injury, learning disability not in conjunction with any other mental health condition will be mostly excluded by default by excluding inpatient hospitals that are part of tertiary commissioned services

Data sources
There will be four separate main aspects of the study; these different data sources will not be linked at a patient or organisational level:

1. Confidential case note and clinical questionnaire review
   This aspect will be used to assess the physical healthcare provided in the following areas:
   • Inpatient care in the mental health hospital
   • Transfer to acute physical health care via ambulance
   • Admission/ discharge to secondary acute (physical) care hospital
   • Home treatment teams
   • Follow-up with primary care – documented in mental health notes

2. Organisational survey
   An organisational questionnaire will be sent to all Mental Health Trusts/organisations to elicit variation in the provision of physical health services within individual hospital units. In addition to those hospitals taking part in the clinical review, it will also include specialist commissioned mental health services.

3. Patient and carer survey
   An online anonymous survey will be used to collate the views of patients and carers with respect to the physical healthcare they have received. NCEPOD will work with Local Reporters, study contacts and patient groups (i.e. MIND, RETHINK, NSUN) to encourage involvement.

4. Clinician survey
   An online anonymous survey will be used to collate the views of clinicians. Data collected will include information on:
   • The commissioning of services
   • Competence and confidence of mental health professionals to assess, identify, monitor and treat patients with acute physical health problems
   • Level and accessibility of support available to deliver evidence based care
   • Transfer arrangements
   • Equipment
   • Training
Sample size for the confidential case review

The exact number of patients that will be identified as the basis to sample from for the case review is hard to determine. Discussions with some mental health hospitals have highlighted that physical health conditions are not widely recorded and ICD10 codes are frequently not used. Therefore the primary source of patients is likely to be those identified as having been transferred to a general health hospital for physical healthcare. No data on the clinical care from that hospitals there will be assessed but it will be the most robust means to identify a focused group of patients with the physical conditions of interest.

To estimate the sample size a scoping exercise was undertaken to identify the approximate frequency of mental health inpatients being transferred during their mental health admission to a general hospital for physical health needs. It was found that:

- There was a wide range of incidence of transfers in 20 individual hospitals reviewed: 11-1,120 in 1 year (per hospital)
- Within a recent large population-based linkage study conducted over one year in one hospital 10.4% of the 8,023 psychiatric admission episodes included at least one night in a general hospital during that psychiatric inpatient admission
- In a previous study published by NCEPOD looking at mental healthcare in physical health hospitals ‘Treat as One’\textsuperscript{13}, at a national level 60/1000 patients were identified in one month, following sampling of 5 patients per hospital from an initial sample of ~11,000 patients. Therefore, extrapolating this out it would have equated to ~660 patients in one month; 7,920 in 1 year stay

The scoping exercise therefore suggested that the number of patients that fill the study criteria could be very variable. To ensure sufficient numbers can be identified for our study sample, we will take a restrospective 1 year cohort.

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<th>Data source</th>
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<td>Potential population identified from which to sample for the case note review</td>
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<td>Clinician questionnaires following sampling</td>
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<td>Case note review following sampling</td>
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<td>Organisational questionnaire</td>
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<td>Online clinician survey</td>
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<td>Online patient survey</td>
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\textsuperscript{13} NCEPOD. Treat as One. 2017. https://www.ncepod.org.uk/2017mhgh.html
**Data collection - process**

**Identification of patients to be included in the clinical review**

1. Identify a Local Reporter who is responsible for providing the details of patients for inclusion. This role is already established in physical health hospitals and Medical Directors of mental health hospitals will be the primary contact to facilitate this.

2. Local Reporters/Medical Directors in mental health hospitals will be sent details of the study criteria to populate a spreadsheet with basic details of all patients who meet the inclusion criteria.

3. In parallel, the Local Reporters within acute physical health hospitals will be sent details of the study criteria to populate a spreadsheet with basic details of all patients who were admitted as a transfer from a mental health hospital.

The scoping exercise indicated that patients should be identifiable on the central hospital record system as having a ‘source of admission code’ (or equivalent) of “OTHER NHS HOSPITAL - MENTAL ILLNESS / HANDICAP WARD” – National Admission Source code (53) or Local Admission Source Description – ‘NHS PROVIDER MH/LD’.

4. From all provider types, data collected via the spreadsheet on all eligible patients will include: the hospital details, the patient’s identifiers (NHS/CHI number, hospital number, date of birth), ethnicity, the patient’s Mental Health Act legal status at the point of admission, mental health diagnoses, the primary reason for admission (ICD10 codes if applicable), admission / discharge dates, discharge destination, source/ location from which admitted, name of responsible clinician, the long-term physical health conditions of the patient (ICD10 codes if applicable), the outcome of the admission, the number of previous hospital admissions, the details of the mental health/secondary acute hospital/ Trust/Health board where the patient was transferred to/from and whether the patient died onsite or within 30 days of discharge.

5. Once a comprehensive list of patients has been obtained, sampling will be undertaken for inclusion in the clinician questionnaire and case note review process to ensure hospitals are not overburdened. For each mental health hospital, the sample of patients for review will include a mix of patients identified from the mental health Trust records (with one of the aforementioned physical health conditions) and those identified by the local acute physical health hospital (where they were transferred for treatment).
Clinical questionnaires

Organisational questionnaire
Data collected will include information around the organisation of services, networks of care and multidisciplinary team working, the commissioning of services, the use of guidelines and protocols and training.

Clinician questionnaire
A questionnaire will be sent to the named consultant psychiatrist responsible for the care of the patient whilst admitted as an inpatient at the mental health hospital.

The clinician questionnaires will be disseminated to the relevant clinicians via the NCEPOD Local Reporter and completed using an online system. Reminder letters will be sent at six weeks and ten weeks where the data are outstanding. The Local Reporter will be asked to return copied extracts of the patient’s case notes to NCEPOD alongside the completed questionnaires (where applicable).

Case note review
Case note review will focus on the group of patients who had an acute admission to a general hospital during the study period. Case notes relating to the admission to the inpatient mental health hospital will include:

- Mental health notes
- Physical health notes (if separate or additional templates/plans)
- Admission summary/proforma
- Discharge summary/proforma
- Discharge medication list/form
- Care plans
- Capacity assessments in relation to physical health care
- Risk assessments
- Ward round notes
- Any discharge summaries received following a transfer to or appointment with a physical health provider during the mental health inpatient episode of care.

Notes from the secondary acute physical health hospital where the patient was admitted will include only the:

- Admission documentation/transfer documentation from MH unit
- Discharge summaries

Upon receipt at NCEPOD the case notes will be redacted if not already done so prior to sending.

A multidisciplinary group of reviewers will be recruited to assess the case notes and questionnaires and provide their opinion on the care the patients received using a semi-structured assessment form. The reviewer group will comprise psychiatrists
and mental health nurses, mental health pharmacists as well as physicians, surgeons, general nurses.

Successful applicants will be asked to attend a training day where they will each assess the same two cases to ensure consistent assessment. A number of meeting dates will be arranged, and each reviewer will then be asked to attend a further 6 meetings.

NCEPOD staff will ensure there is a mix of specialties at each meeting from across the UK. Each meeting will be chaired by an NCEPOD Clinical Co-ordinator who will lead discussion around the cases under review. Towards the end of the study the reviewers will be invited to attend a meeting where the data will be presented to and discussed with them. The reviewers will also be sent two copies of the draft report for their comment as this is developed.

**Patient survey**
This survey will be disseminated via service user, charity and professional networks, and also via the NCEPOD Local Reporters to send throughout acute care and community care. The survey will not be linked to any other aspects of data collection. This survey will gather data on patient/service user and carer views of the services available to them.

**Clinician survey**
This survey will be made available via the NCEPOD website for completion by all clinicians who may provide care for patients with mental health and physical health needs (psychiatrists, mental health nurses, mental health pharmacists, allied health professionals). This will gather data around the confidence and competence of staff to cover the needs of these patients as well as their views on the commissioning of services, training and risk management, other key areas for improvement and examples of excellence.

**Confidentiality and data protection**
All electronic data are held in password protected files and all paper documents in locked filing cabinets. As soon as possible after receipt of data NCEPOD will encrypt electronic identifiers and anonymise paper documents. Section 251 approval has been obtained to perform this study without the use of patient consent in England and Wales. Public Benefit Privacy Panel approval has been received for Scotland.

**Study promotion**
Prior to data collection, NCEPOD will contact NCEPOD Local Reporters. The study poster will be sent to the relevant departments both in the mental health and
physical health hospitals via study contacts recruited as part of the case identification strategy, and via the relevant Colleges and Associations.

Other networks may include: Equally Well UK, MIND, RETHINK, Regional Strategic Clinical Networks, London Physical Health Leads Network, better care support teams.

**Dissemination**
On completion of the study a report will be published and widely disseminated.

**Data sharing**
Post publication of the study there is the potential to share anonymised data sets with interested parties working in the same field. This will be undertaken following a strict process and will ensure the data does not become identifiable in their nature due to small numbers.

**Additional resources**
- NCEPOD Communications Strategy for physical health of inpatients in mental health hospitals.
- Patient information poster.
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