

## Physical Health in Mental Health Day 1

MICROPHONES OFF Videos on



## **Group Agreement**



## Respect views and opinions of others

- Confidentiality
- Ask questions: no such thing as a bad / stupid question
- Timekeeping
- Participate as fully as possible and support the participation of others
- Patience Community mental health tobacco treatment training



## Overall Learning outcomes and Pre-Course Evaluation for completion



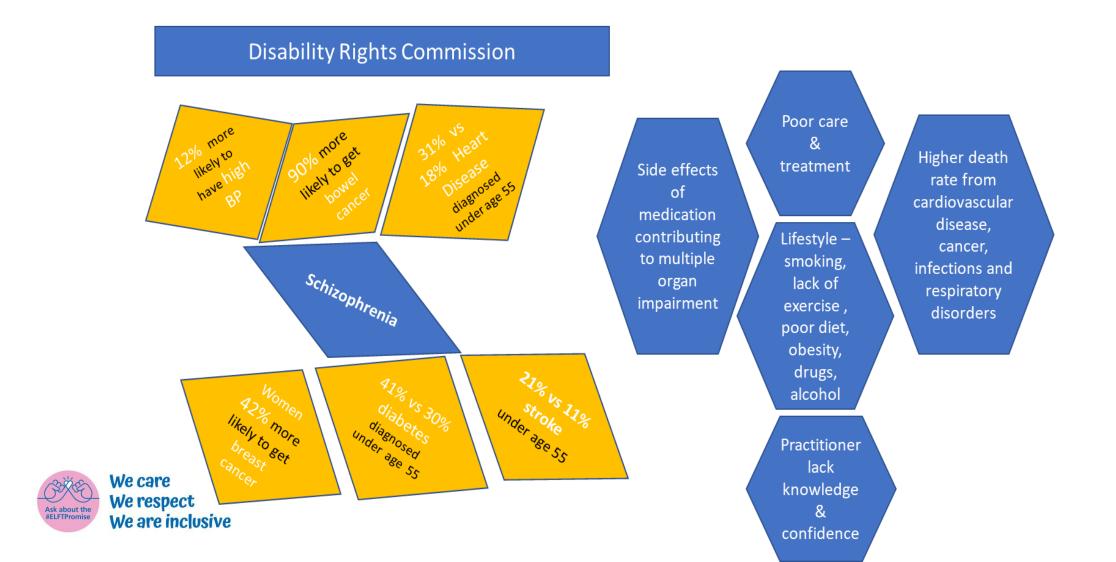
- •Working to improve the physical health outcomes for people with SMI
- Reflect on the lived experience
- •Understand and reflect on the 10 key actions outlined in the 'Improving the physical health of people living with severe mental illness' NHS England guidance.
- https://www.england.nhs.uk/publication/improving-physical-healthcare-for-people-living-with-severe-mental-illness-smi/
- •Learn from established practice in the assessment and management of physical health conditions
- •Understand and reflect on what you need to do to bring together physical and mental health
- •Ensure every person under your care receives effective assessment and monitoring of physical health
- •Develop your skills in screening, assessment, treatment and monitoring
- •Supports CPD professional development and acts as revalidation evidence.

Please click on the link in the chat to complete the pre-course evaluation



## The Five Year Forward View for Mental Health (2016): focus on improving physical health outcomes in people with mental illness





## Learning outcomes course outline



- 1. To gain knowledge and understanding of the causes and prevention of Physical Health conditions in Mental Health Services Users and how to identify health needs, assess and implement timely actions in line with evidence-based practice.
- To gain understanding of the various factors that contribute to physical Health including lifestyle and the common side effects with psychotropic medication.

#### **Course outline:**

- Learning from Serious Incidents
- NEWS 2, Vital Signs
- Delirium
- Slip, Trips and Fall
- Sepsis
- Nutrition and hydration
- Diabetes
- Respiratory problems
- Cardiovascular problems
- Dysphagia
- Constipation



## ELFT mortality data in national context



Based on 2018-2020 data, people with Serious Mental Illness (SMI) are nearly 5 times more likely to die prematurely than those who do not have an SMI:

- 4 times more likely to die early due to cardiovascular disease than those who do not have an SMI
- Just over 6.5 times more likely to die early due to respiratory disease
- 6.5 times more likely to die early due to liver disease
- Just over 2 times more likely to die early due to cancer
- Risk factors such as tobacco use are more prevalent in people with an SMI compared to the general population:
- Smoking prevalence in all adults (aged 18+) 16.4%\* vs 40.5% among those with SMI



Source: Excess under 75 mortality rates in adults with serious mental illness 2018 to 2020 England, May 2022 <a href="https://files.digital.nhs.uk/CC/287C9F/SMI\_Excess\_mortality\_2018\_20.pdf">https://files.digital.nhs.uk/CC/287C9F/SMI\_Excess\_mortality\_2018\_20.pdf</a> Accessed 7/2/2023 <a href="https://www.gov.uk/government/publications/health-matters-smoking-and-mental-health/health-health/health-health/health/health-health/health/health/health/health/health/health/health/health/healt

## Co-morbidities and routine clinical care



- Co-morbid disease in this population was common, despite the young profile of the inpatient cohort:
  - 37% (n=13) had documented histories of cardiovascular disease
  - 34% had diabetes
  - 26% had chronic respiratory disease
  - 9% had cancer

<u>However</u>, investigations did not identify specific opportunities for improvement of routine care for these conditions among inpatients



## Physical Health Cause of Death



- Wide variations in documented CoD linked to physical health conditions among n=35 included cases
- Underlying CoD\* linked to:

We are inclusive

- Cardiovascular disease in n=15 cases (43%)
- Type II diabetes in n=7 cases (20%)
- Chronic respiratory disease in n=5 cases (14%)

COVID-19 was the documented CoD in n=4 cases (11%)

\* This was defined as a category 1b or 2 cause on the death certificate, rather than 1a.

## Deaths among ELFT patients: broad overview

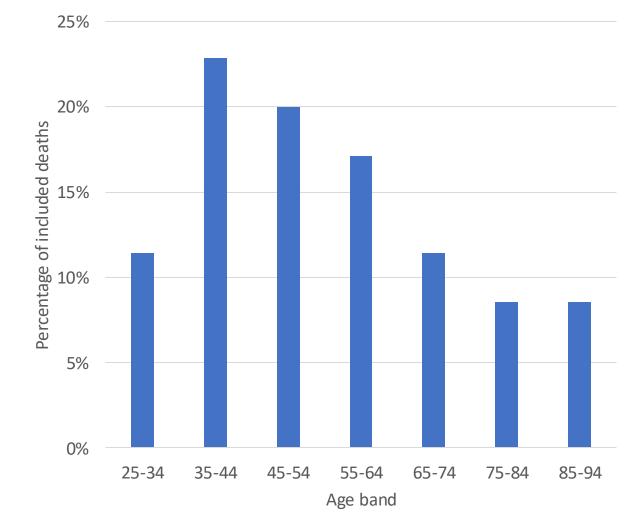


No clear trend in deaths over time discernible

Mortality profile for ELFT inpatients is younger than would be expected in the general population: median age at death = 54 years

The gender profile for deaths is slightly skewed towards males: 54%

40% of deaths occurred among people of black or mixed and black ethnicity: likely reflecting profile of inpatient admissions overall





## Risk factors for disease



- Risk factors for physical ill-health were common:
  - 43% of patients were either current smokers or had a past history of tobaccouse
  - 43% had hypertension
  - 29% were currently excess alcohol consumers or had a past history of this
  - 29% either engaged in substance misuse around the time of death or had done so in the past.
- Morbid obesity was directly identified as a contributory factor to poor outcomes following hospital admission in n=3 cases.
- Psychiatric Medicines associated with.....



## Psychiatric Medicines associated with.....



- Changes in conscious level
- Obesity
- Hypertension
- Cardiac arrhythmia abnormal and dangerous heart rhythms
- Diabetes
- Constipation



## Psychiatric Medicines associated with.....



There is also potential for early intervention to maintain and improve the physical health of people with severe mental illness and learn from recent 'Serious Incidents'

- People with severe mental illness have a life expectancy up to 20 years lower than the general population
- Research has shown that mental health conditions with the greatest increases in risk for all-cause mortality in comparison with the general population are substance misuse, anorexia nervosa, and schizophrenia
- In ELFT Physical conditions were the commonest cause of death (61%), followed by suspected suicide (19%) and suspected substance misuse (13%).
  - 65% of the deaths occurred on the mental health ward, 19% occurred out of hospital (absent, on leave or within seven days of discharge) and 16% occurred elsewhere in hospital following a transfer to an acute hospital/ward.

•



## Common care issues identified

- Among those cases for which further investigations were carried out, the two most common care issues identified (relating to physical health) were:
- Monitoring: identified as an area for learning in n=16 (46%) of the deaths and spanned issues including:
  - Adherence to monitoring plans
  - The frequency of observations especially for patients on enhanced monitoring
  - Readiness of availability of monitoring equipment.
- CPR and resus problems: arising in n=6 (17%) of the deaths, and spanned issues including:
  - The timeliness/speed of initiation of CPR for patients who had collapsed on the ward
  - Staff training/competency to perform CPR (BLS vs ILS training)
  - Ease of use of Rhesus equipment.

We are inclusive

All Patients to have a screening risk for Venous thrombosis embolism within 14 hours of admission and VTE assessment carried out as required and recorded on RIO Patient electronic template under Physical Health. <a href="https://www.nice.org.uk/guidance/qs201">https://www.nice.org.uk/guidance/qs201</a>

## Prevention and next steps



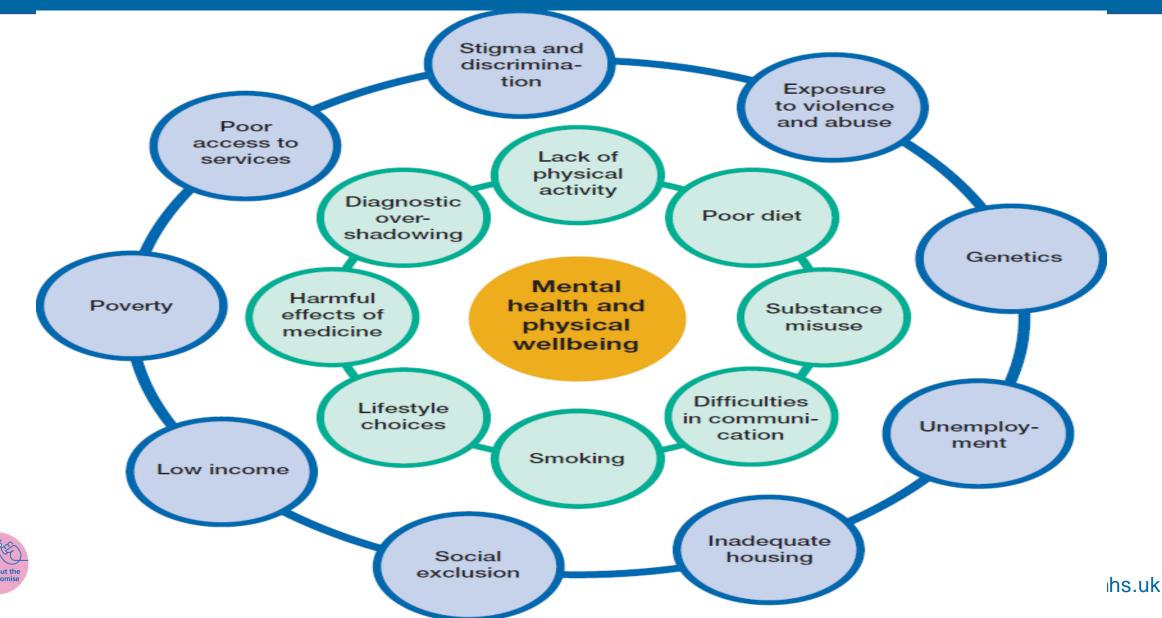
## Next steps could include:

- Essential Training 2 day Training for all inpatient mental Health staff.
- Strengthened training and support for on-ward monitoring and CPR.
- ✓ Strengthening primary and secondary prevention work: referrals to stop smoking service, action on healthier lifestyles (diet, physical exercise and substance misuse) as part of recovery.



## Prevention and next steps



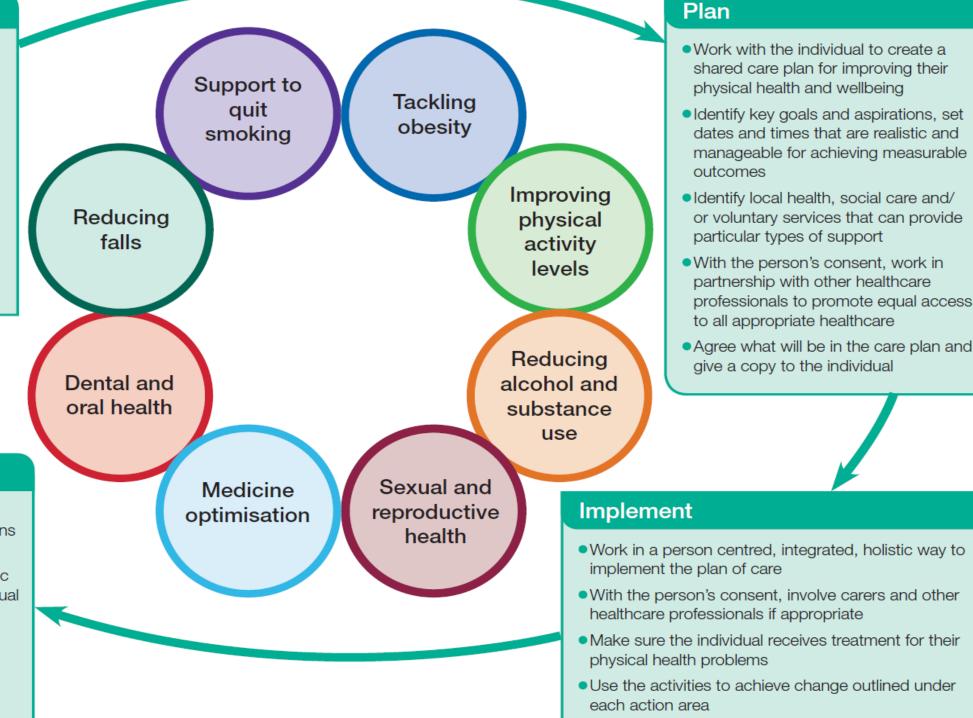


## Assess Use a person centred approach to assess the individual's current physical health and concerns

- Listen to the person, their preferences
- Identify what is important to the person, how they live their life and what they want to change
- Acknowledge and address the individual's fears and anxieties
- Use an appropriate physical assessment tool

## **Evaluate**

- Monitor and review progress with the individual and refine and adjust care plans if necessary
- Discuss and record outcomes of specific actions and interventions with the individual
- Gather evidence on the impact of any changes, for example by repeating assessment tool measures
- Review priorities and action areas and negotiate with the individual to update



daptation An intervention framework for patie ve Cardiometabolic Health Resource with psychosis on antipsychotic med **Body Mass Glucose Regulation** Blood Index (BMI) Lifestyle (Assess by fasting plasma Blood ing

Poor diet AND/OR noker

Sedentary lifestyle

Weight

BMI ≥25 kg/m<sup>2</sup>

(≥23 kg/m² if South

Asian or Chinese)

AND/OR

Weight gain >5kg

over 3 month period

Pressure

>140 mm Hg systolic AND/OR >90 mm Hg diastolic

glucose; random plasma glucose; HbA<sub>1c</sub>)

HbA<sub>1C</sub> or Glucose threshold:  $HbA_{1C} \ge 42 \text{ mmol/mol } (\ge 6\%)$ AND/OR FPG ≥5.5 mmol/l OR RPG ≥ 11.1 mmol/l

Total cho

High (>20 (using a equation based on of total c

Lifestyle advice to include diet and physical activity.

Medication review.

Refer for investigation, diagnosis and treatment by appropriate clinician if r

ridual tion er to king gramme er acement

et

ssation

Follow NICE guidelines for obesity http://www.nice.org. uk/CG43

Follow NICE hypertension quidelines http://publications. nice.org.uk/ hypertension-cg127 Consider antihypertensive therapy Diet: limit salt intake

At High Risk of Diabetes HbA<sub>1c</sub> 42-47 mmol/mol (6.0% - 6.4%)

FPG 5.5 - 6.9 mmol/l Offer intensive structured lifestyle education programme

ii) If ineffective consider metformin (see overleaf)

Diabetes

HbA<sub>1c</sub> ≥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

Cons modifica patient CVD o

NICE

for lipid

http://w

uk/nice

CG67NICE

#### Target

Improve quality of diet Contain energy intake

Target BMI 18.5-24.9 kg/m<sup>2</sup> (18.5-22.9 kg/m²

if South Asian

or Chinese)

Target <140/90 mm Ha

(<130/80 mm Hg for those with CVD or diabetes)

#### Target

Prevent or delay onset of diabetes HbA<sub>1c</sub> <42 mmol/mol

(<6%)

HbA<sub>1c</sub> 47-58 mmol/mol (6.5-7.5%)

Target

30% to

total ch and LD

Ta

## Group work – Break-out rooms



# Describe the roles and responsibilities of the admitting Registered Nurse and Doctor





#### Figure 1 - Inpatient Admission Flowchart - Registered Nurses

Timeline

**Admitting Nurse** 

Referral Action

On Admission Physical Health Assessment with smoking status.

- Drug and Alcohol Screen.
- Refer to Doctor if withdrawal signs from Alcohol.
- Offer Nicotine Replacement Therapy (NRT), two sources.

Within 1 hour of admission · Complete life style assessment.

- Refer to Doctor if withdrawal signs from Alcohol are suspected.
  - https://www.mdcalc.com/calc/1736/ ciwa-ar-alcohol-withdrawal)
- · Check Smoking Status
- Offer Nicotine Replacement Therapy (NRT), two sources.

Tobacco. Referral to ELFT.stopsmoking@nhs.net

See ELFT Alcohol policy

https://www.elft.nhs.uk/sites/def ault/files/2022-

03/Review%20Alcohol%20%26%2 0Substance%20Misuse%20Policy, pdf

Within 4 hours

- Temperature, BP, Pulse, RR, Oxygen, Saturation, Blood Glucose (for diabetic patients), BMI (weight for height) (SANSI tool to be completed routinely for adults.
- Urinalysis, UDS, Pregnancy test if<55 female.</li>
- Infection screening, Oral Hygiene, Hydration, Safeguarding.
- Falls and Skin risk assessment, Body map for older adults. (refer to Falls policy) NEWS2 chart.

- Escalate in line with NEWS 2 to and if any vital signs are out of range refer to Doctor.
- Consider referral to specialist Teams e.g. Diabetes.
- · Tissue viability.
- Nutrition.
- Therapist for the local Service pathway.
- Safeguarding Teams.
- Refer to local referral pathway.
- Manual Handling Policy (2020).
- A falls risk assessment.

https://www.elft.nhs.uk/intranet/ documents/slips-trips-and-fallsmanagement-inpatient-policy

Admission to 3 months

- . BP, temperature, pulse.
- RR & Weight, Monthly check list Eyes, hearing.
- Sex health screening, Dentition.
- Smoking, Very Brief Advice (VBA).

Weekly Vital Signs to be undertaken and if there are any changes refer to NEWS 2. On the Older Adult ward, vital signs are undertaken daily.



#### Figure 2 - Inpatient Admission Flowchart - Doctors

#### Timeline

#### **Admitting Doctor**

#### Referral Action

## **East London NHS Foundation Trust**

#### On Admission

- Consent & Mental Capacity Assessment.
- · In-depth, history, physical examination and physical and mental health assessment.
- Record onto RIO online Physical Health forms and NEWS2 paper charts.
- Make a prescribing / transfer decision if withdrawing from alcohol and/or drugs.
- D/W Cardiologist if needed. Referral to diabetic specialist Registered Nurse where

appropriate.

Liaise and refer with Acute NHS Trust.

Within 4 hours

- Venous Thromboembolism assessment (VTE).
- ECG.

#### Full Medical Clerking

- Past Medical History.
- Review list of diagnoses and medications provided by patient's GP.
- Note any hospital appointments pending on HIE & inform treating Teams to add to ward

#### Patient Examination

#### Vital Signs

- Review and interpret.
- Blood pressure, pulse, temperature and respiration rate.

#### Cardiovascular system

- Cardiovascular examination.
- Complete and interpret ECG.
- Escalate to medical Teams if any acute concerns.
- Referral to inpatient GP as required.

#### Respiratory system

- Respiratory examination.
- Escalate to medical Teams if any acute concerns.
- Referral to inpatient GP as required.

#### Abdominal system

- Abdominal examination.
- Escalate to medical Teams if any acute

#### Baseline Bloods

· Full Blood Count; Urea & Electrolytes; Liver Function Tests; Thyroid Function Tests; HBA1C; Cholesterol; HIV; Syphilis, Hep B. Hep C; BHCG, basic electrolytes, serum calcium.

#### Medications

- Record allergy status on JAC.
- Prescribe regular medications on JAC. Prescribe new/acute medications as
- indicated.
- If required, prescribe alcohol withdrawal medications based on Clinical Institute Withdrawal Assessment for Alcohol scales CIWA scale.
- https://www.mdcatc.com/catc/1736/chya-aralcohol-withdrawal
- https://www.elft.nhs.uk/sites/default/files/2022
- patient alcohol detaxification quidelines 3.0

- Make a prescribing / transfer decision if withdrawing from alcohol and/or drugs. D/W Cardiologist if needed.
- Referral to diabetic specialist Registered Nurse where
- appropriate.
- PH, Examination
- Consider discussion with:
- Medical/surgical seniors at local general hospital.
- Referral to TVN where appropriate.
- Nutritional assessment refer dietician as appropriate.
- Any dental issues? refer community dental Teams.
- Female patients require a menstrual history to assess for menopause, PMS, PCOS, Contraception, STI screening.

(Physical health form on BiQ for Women's Health)

4-24 hours

16



#### Responsible Clinician

Review physical health and investigation findings (compare with previous), re-offer exam / tests if refused and document. Discuss smoking status.

- RIO
- Include in ongoing treatment.
- Plan: Make a referral as required and appropriate. (Refer to referral flow chart)

https://www.effl.nhs.uk/intranshnews/news/ -referral-form-and-pathway-amhp-andedf-service-spring-2021



#### Admission to 3 months

- On Antipsychotics, Lipids, fasting Glucose and/or Glucose + HbA1c monthly for first 3/12.
- If on Lithium also levels + Creatinine 3/12ly or at dose change. 6/12ly weight, Thyroid Function Test. Vitamin D and Vitamin B12.(NICE NG 239)
- ECG: If starting antipsychotic or above British National Formulary max dose.

#### 3-month review

- Lipids, prolactin (if indicated), fasting Glucose, HbA1c. Prepare D/C (includes):
- Reason for admission.
- Psychiatric medications.
- Life style advise (smoking, exercise, healthy weight management).
- Always include total Chol, HDL, TG, Gue/HbA1c, Pathological findings.
- If on Lithium: creatinine, Li-levels, TFT.
- Crisis signs and crisis plan.
- Name of Key Workenkey worker.

Consultant review physical Health parameters.

#### Responsible Clinician

Review physical health parameters.

On discharge TTOs with Pharmacy (Admission and Discharge Policy).



elft.nhs.uk



# Break 10 minutes





# VITAL SIGNS, NEW2 Contact and Non- contact



# Group Work – 5 mins put your hands up



- ➤ What are vital signs?
- ➤ How are you taking them and recording them?
- ➤ What are the normal ranges and what might be the cause(s) if they are not 'normal'?







Physiological		Score							
parameter	3	2	1	0	1	2	3		
Respiration rate (per minute)	≤8		9–11	12–20		21–24	≥25		
SpO <sub>2</sub> Scale 1 (%)	≤91	92–93	94–95	≥96					
SpO <sub>2</sub> Scale 2 (%)	s83	84–85	86–87	88-92 ≥93 on air	93–94 on oxygen	95–96 on oxygen	≥97 on oxygen		
Air or oxygen?		Oxygen		Air					
Systolic blood pressure (mmHg)	≤90	91–100	101–110	111–219			≥220		
Pulse (per minute)	≤40		41–50	51–90	91–110	111–130	≥131		
Consciousness				Alert			CVPU		
Temperature ('C)	≤35.0		35.1–36.0	36.1–38.0	38.1–39.0	≥39.1			



## CVPU



- A = Patient is fully awake and alert
- C = Confused with new or different behavious
- V = Responding to voice
- P = Responding to pain
- **U** = Unconscious



## **Systolic Blood Pressure**



Systolic blood pressure is the first reading when measuring. The Top number.

It measures the force of blood coming from the heart. The pressure of the wall on the arteries.

Normal sytolic blood pressure reading is at 120. This number goes up in age. Lower than 101 will score.

High blood pressure may predict cardiovascular changes - heart damage, aortic aneurysm, eye and kidney damage.

High blood pressure readings may not score on the NEWS 2 chart but should always be reported to the Doctors and at Physical Health MDT meetings.

Cause of sudden low blood pressure = Sudden illness, dehydration, vomiting, diarrhoea, blood loss from internal bleeding or injury as well as fear, emotional stress and pain. Low blood pressure can lead to death.

Some people have a norma; low blood pressure, that's another reason to monitor to see the trend of the patients vitals.

Low blood pressure could indicate a long term illness or condition.





• Step 1:

Record vital signs (choose the correct saturation recording section) and add scores together to find overall NEWS2 score

• Step 2:

Check if any vital sign has a score of 3 (red score)

• Step 3:

Identify the correct clinical response and action. Any red score or score ≥ 5 Think!

Could this be sepsis?



## Record Vital Signs, Add scores for overall score, check if any parameter has score of 3, Identify the correct clinical response for the score



NEW2 score/Response	Clinical risk	Frequency of monitoring	Response
Aggregate score 0 Low	Low	Ward baseline	No further action required. Continue routine recording
Aggregate Score 1-4 Urgent ward based response	Low	As planned	Inform the nurse in charge/registered nurse who will assess the service user.  Nurse in charge/registered nurse decides whether to increase monitoring frequency or to escalate care to ward medical team.
Red Score 3 in any individual parameter Urgent ward based response	Low medium	Minimum Hourly	Inform the nurse in charge/registered nurse who will assess and inform the ward medical team.  Ward medic will review and decide if further escalation is necessary and/or liaise with Acute Trust medics and/or transfer care.
Aggregate Score 5-6 Urgent MDT response	Medium	Minimum Hourly	Inform the nurse in charge/registered nurse who will assess and request an urgent assessment from the ward medics.  Ward medics will review and decide if further escalation is necessary and/or liaison with Acute Trust medics and/or transfer care.
Aggregate Score 7 or more continuous monitoring	High	10 minutes	Inform the nurse in charge/registered nurse who will assess and urgently inform ward medics of the person's deterioration and/or dial 999 for urgent medical response. Inphase.





Mrs Brown complains of feeling generally unwell. You take her vital signs (below). Record the vital signs on the NEWS2 chart

Resps (on air) 20/min

Sat 95%

BP 120/75

pulse 94/min regular

Conscious level: alert

Temp 38.3∘c

What is the NEWS2 score?

Are there any red scores?

At what level is the clinical risk?

How should you respond?

How frequently should you record vital signs?

Chart 1: The NEWS scoring system

Physiological				Score			
parameter	3	2	1		1	2	3
Respiration rate (per minute)	≤8		9–11	12-20		21–24	≥25
SpO <sub>2</sub> Scale 1 (%)	≤91	92–93	94–95	≥96			
SpO <sub>2</sub> Scale 2 (%)	≤83	84–85	86–87	88-92 ≥93 on air	93–94 on oxygen	95–96 on oxygen	≥97 on oxygen
Air or oxygen?		Oxygen		Air			
Systolic blood pressure (mmHg)	≤90	91–100	101–110	111–219			≥220
Pulse (per minute)	≤40		41–50	51–90	91–110	111–130	≥131
Consciousness				Alert			CVPU
Temperature (°C)	≤35.0		35.1–36.0	36.1–38.0	38.1–39	≥39.1	

What could be wrong with Mrs Brown?





Mr Ali has suddenly become very agitated and appears confused. He has been incontinent of urine and it has an offensive smell. You take his vital signs (below). Record the vital signs on the NEWS2 chart

Resps (on air) 26/min

Sat – refuses

BP refuses

Pulse refuses

Consciousness confused

Temp 35.5°c

What is the NEWS2 score?

Are there any red scores?

At what level is the clinical risk?

Could this be sepsis?

How should you respond?

How frequently should you record vital signs?



Physiological				Score			
parameter	3	2	1	0	1	2	11
Respiration rate (per minute)	≤8		9–11	12-20		21–24	≥25
SpO <sub>2</sub> Scale 1 (%)	≤91	92–93	94–95	≥96			
SpO <sub>2</sub> Scale 2 (%)	≤83	84–85	86–87	88-92 ≥93 on air	93–94 on oxygen	95–96 on oxygen	≥97 on oxygen
Air or oxygen?		Oxygen		Air			
Systolic blood pressure (mmHg)	≤90	91–100	101–110	111–219			≥220
Pulse (per minute)	≤40		41–50	51–90	91–110	111–130	≥131
Consciousness				Alert			CVPU
Temperature (°C)	≤35.0		35.1–36.0	36.1–38.0	38.1–39.0	≥39.1	

What could be wrong with Mr Ali?





Mr Soma suffers from COPD. He is on permanent oxygen via nasal cannula, 2 litres/min and his saturations are normally 90% on this oxygen. He has suddenly become very agitated and appears confused. He is coughing and sounds chesty. The nurses have increased his oxygen to 10L/min. You take his vital signs (below). Record the vital signs on the NEWS2 chart

Resps (on oxygen) 26/min

Sats - 97%

BP 98/60

Pulse 104 irregular

Conscious level: confused

Temp 35∘c

What is the NEWS2 score?

Are there any red scores?

At what level is the clinical risk?

Could this be sepsis?

How should you respond? How frequently should you record vital signs?



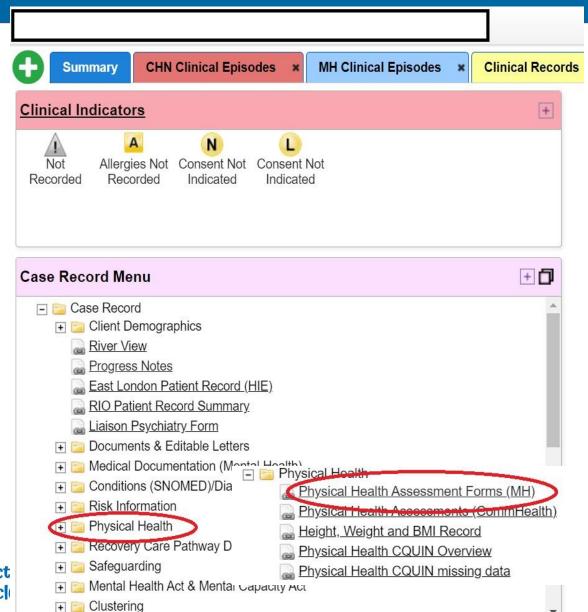
Chart 1: The NEWS scoring system

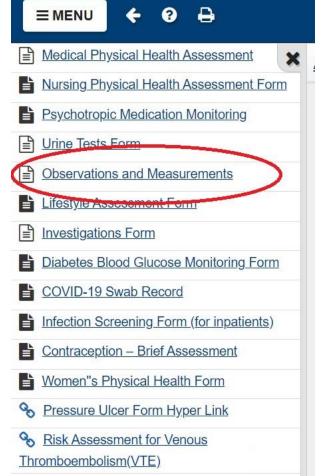
Physiological parameter	3	2	1 1	Score 0	1 1	2	3
Respiration rate (per minute)	≤8		9–11	12-20		21–24	225
SpO <sub>2</sub> Scale 1 (%)	≤91	92-93	94–95	≥96			
SpO <sub>2</sub> Scale 2 (%)	≤83	84–85	86-87	88-92 ≥93 on air	93–94 on oxygen	95–96 on oxygen	≥97 on oxygen
Air or oxygen?		Oxygen		Air			
Systolic blood pressure (mmHg)	≤90	91-100	101–110	111–219			≥220
Pulse (per minute)	≤40		41–50	51–90	91–110	111–130	≥131
Consciousness				Alert			CVPU
Temperature (°C)	≤35.0		35.1–36.0	36.1–38.0	38.1–39.0	≥39.1	

What could be wrong with Mr Soma?

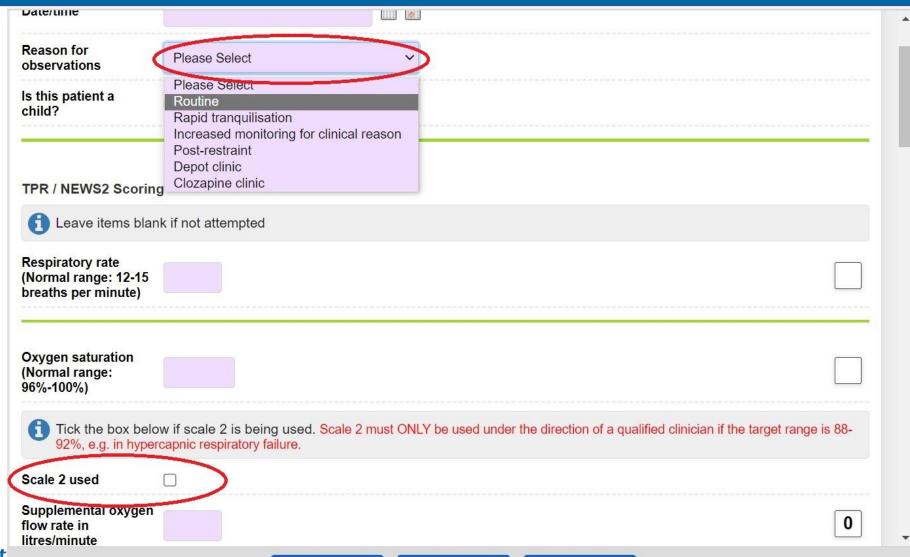
### **NEWS on RiO**

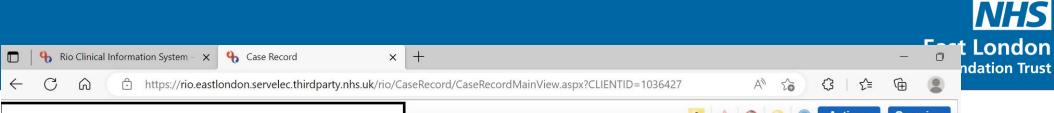


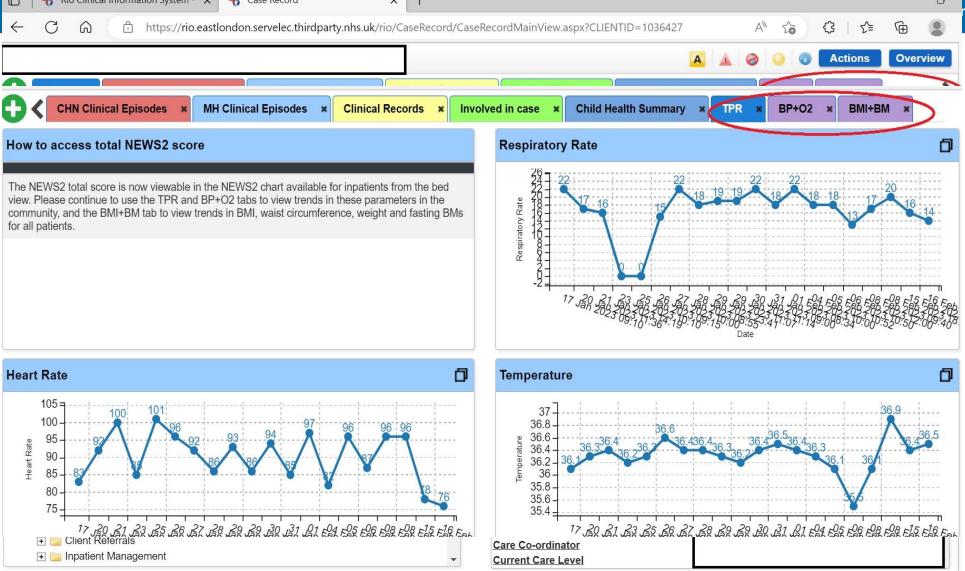














You can find the patients chart to view go into the ward bed list - in the patients bed list of observations - its good to see the trend of the vital signs.







# **Non-Contact Vitals**



• Sometimes patients refuse to have vitals taken, or they're in seclusion and it's not safe to go in.

E.g, when a patient is Tranquilised (check the rapid tranq chart)

- What can we do instead?
- Respiration rate (also regular, shallow/deep)
- Respiratory distress (are they able to talk in full sentences? Are they gasping? Respiratory sounds? Use of accessory muscles?)
- Signs of cyanosis (lips, nose, gums, eyes, nailbeds)
- Level of consciousness (ACVPU)
- Hydration status
- Other (unsteady gait, dizzy, anything you see). Behaviour





- SBARD is a structured way of communicating infomation that requires a response from the receiver.
- Situation This is Staff Nurse Maggie from XX ward; I am calling because I am concerned about Patient Y who has suddenly become very confused
- Background Mr Y has been a patient on the ward for 4 weeks, having been admitted for acute psychosis and was started on olanzapine. He has been well up to now
- Assessment: I have managed to take his vital signs his temperature is 38, pulse 102, resps 20, BP 120/80, saturations 96%. His NEWS2 score is 4, with a red flag for confusion
- Recommendation: I need you to come and assess him straight away as the sudden confusion is very worrying
- Decision: We have agreed you will come to the ward straight away. I will place the patient under constant observation





Always, Always – take the vital signs + Blood Glucose and calculate NEWS2, check for red flags, take the correct action



# **DELERIUM**



# IS IT MENTAL OR PHYSICAL ILL HEALTH



# Mental alertness



### **Definitions:**

Delirium is a state of mental confusion that starts suddenly and its caused by a physical condition.

The person may not know where they are, what time it is or what is happening to them. It is also called (acute confusional state.

ALL patients with a new confusion, disorientation altered states of consciousness have delirium until proved otherwise. Can be difficult to distinguish between delirium and dementia or acute psychosis.

 Common clinical syndrome characterized by disturbed consciousness, cognitive function or perception which has an <u>acute onset and fluctuating course</u> (sudden/new confusion or drowsniness)

MEDICAL EMERGENCY with poor outcomes: It is a sign of a <u>serious</u> underlying medical condition



# Delirium



Hypoactive

withdrawn, quiet, sleepy. Behaviourally not 'difficult' so more likely to be missed. They may have put themselves to bed.

 Hyperactive heightened arousal, restless, agitated, aggressive – behaviour changes.

- Mixed (both)
- Recent (hours or days) changes or fluctuations in behaviour
- Be particularly vigilant for behaviour indicating hypoactive delirium



# Indicators of delirium



Indicator	Hyperactive	Hypoactive	
Cognitive function	Confusion	Confusion Worsened concentration Slow responses	
Perception	Visual or auditory hallucinations		
Physical function	Restlessness Agitation Sleep disturbance/altered sleep-wake cycle, Not eating/drinking	Reduced mobility Reduced movement Not eating/drinking	
Social behaviour	·	Aggression Withdrawal Lack of co-operation with reasonable requests Alterations in communication, mood and/or attitude	



# Differentiating features of conditions that mimic delirium

	Delirium	Alzheimer disease	Psychotic disorders	Depression
Descriptive features	Confusion and inattention	Memory loss	Loss of contact with reality	Sadness
Onset	Acute	Insidious	Acute or slow	Slow
Course	Fluctuating, often worse at night	Chronic progressive (but stable over the course of a day)	Chronic with exacerbations	Single or recurrent episodes, can be chronic
Duration	Hours to days	Months to years	Months to years	Weeks to months
Consciousness	Altered	Normal	Normal	Normal

# **Causes of Delirium**



- Fever/infection UTI, chest infection, sepsis, covid-19
- Alcohol or drug intoxication
- Stroke, brain haemorrhage
- Myocardial infarction, CCF,
- Hypoxia
- Head injury
- Faecal impaction,
- Dehydration,
- Electrolyte imbalance,
- Acid-base disturbance (acidosis/alkalosis)
- Hypo/hyperglycaemia

  We respect

  We are inclusive

- Fever/infection UTI, chest infection, sepsis, covid-19
- Alcohol or drug intoxication
- Stroke, brain haemorrhage
- Myocardial infarction, CCF,
- Hypoxia
- Head injury
- Faecal impaction,
- Dehydration,
- Electrolyte imbalance,
- Acid-base disturbance (acidosis/alkalosis)
- Respiratory carbon dioxide
- Hypo/hyperglycaemia





# Any Questions?





# Lunch break 12.00 - 1.00pm

# Stay logged in ©





# HEDUCATION PROGRAME





# Sepsis Definition ....

Lay definition...... "A life-threatening condition that arises when the body's response to an infection injures its own tissues and organs"

Professional Narrative definition of Sepsis ....

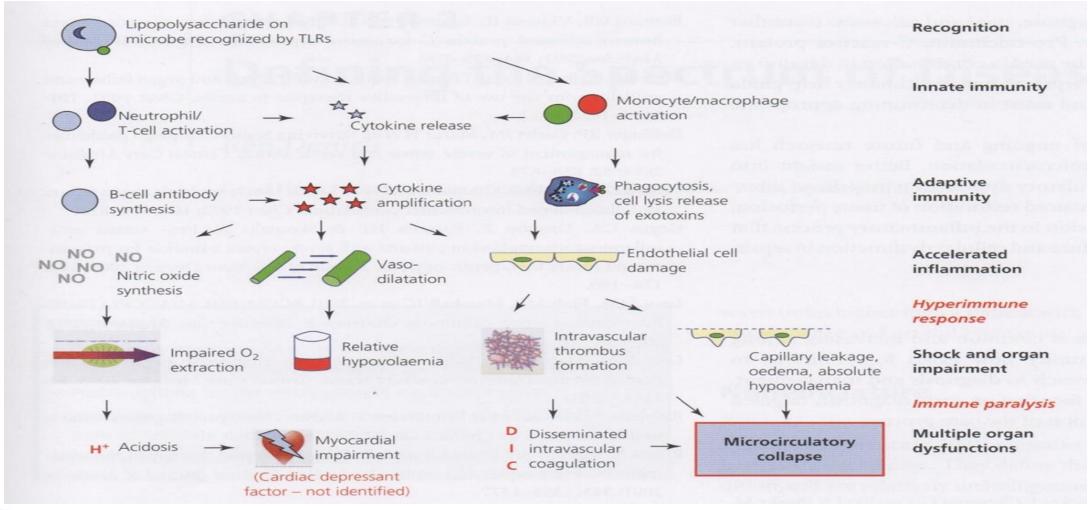
"Sepsis is characterised by a life-threatening organ dysfunction due to a dysregulated host response to infection"

**Ref The Sepsis Manuel 7th Edition 2024** 



### Disease Process Review



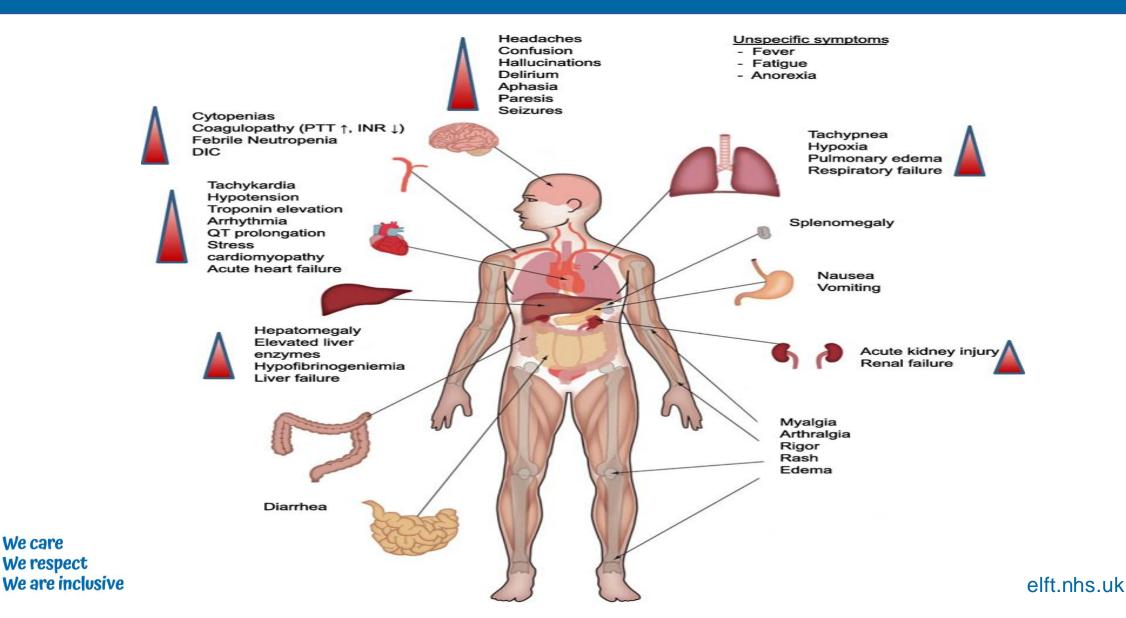




# Cytokine Release Syndrome

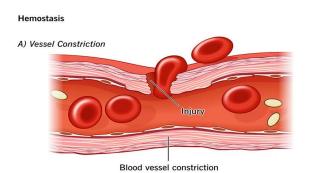
We care We respect



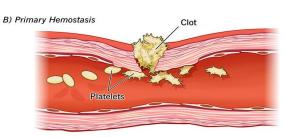


# Sepsis & Disseminated Intravascular Coagulation

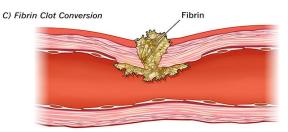




Hemostasis is your body's normal reaction to an injury that causes bleeding.



This reaction stops bleeding and allows your body to start repairs on the injury.



©2021 Cleveland Clinic

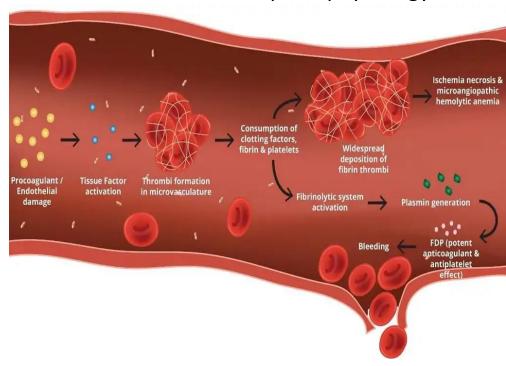




Disseminated
Intravascular
Coagulation (DIC) can causing disordered clotting with associated pathophysiology









### #EDUCATION PROGRAMME







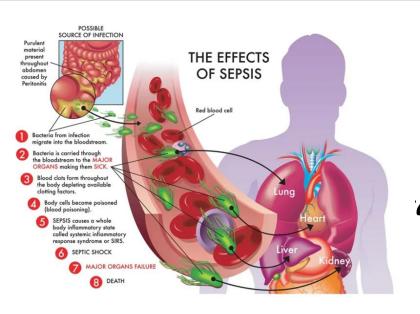
# Any one can Develop Sepsis.....



□Adults over 65yrs
☐People with long term medical conditions, diabetes, lung disease, cancer, kidney disease
☐People who have survived sepsis before, or have had recent hospitalisation or any surgery
☐People with weakened immune systems
□Young children







# "I don't feel well" "I feel terrible" 'I feel like I'm dying"

# Are there signs of infection?

Vital signs (NEWS2), Chest? Urine? WBC, CRP

(No? What else could be wrong?)





# WHAT ARE THE SYMPTOMS?

# SYMPTOMS IN CHILDREN

A child may have sepsis if he or she:

- Is breathing very fast
- · Has a 'fit' or convulsion
- Looks mottled, bluish, or pale
- Has a rash that does not fade when you press it
- Is very lethargic or difficult to wake
- Feels abnormally cold to touch

# SYMPTOMS IN ADULTS

An adult may have sepsis if they show any of these signs:

Slurred speech or confusion

Extreme shivering or muscle pain

Passing no urine (in a day)

Severe breathlessness

t feels like you're going to die

Skin mottled or discoloured

Call III or contact your GP if you're worried about an infection.
Call 999 or visit A&E if someone has one of the sepsis symptoms.



JUST ASK "COULD IT BE SEPSIS?"

# Physical Observations for early recognition



- Patients maybe sleepy or difficult to wake up
- Confusion delirium
- Breathlessness
- Clammy or sweaty skin
- Complain of feeling unwell
- Check urine for signs of infection
- Check chest
- Check body for signs of infection ie pressure sores and pain



# **Vital Signs**



The following should prompt you to think SEPSIS ....

Temperature 38.3 or 36.0
Pulse more than 90
Respirations more than 26 /min
Blood pressure lower then 100 systolic
(first reading)

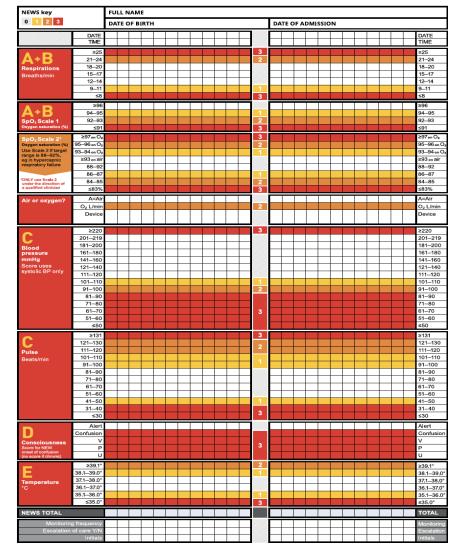
New confusion / different behaviour Blood glucose *more than* 7.7mmol (if not diabetic)





### **NEWS-2**

- > It's not necessary to prove an infection is present to proceed to a risk assessment...
- > THINK SEPSIS ...in any patient you suspect to have an infection
- Calculate the total score-are there any red scores?
- 'Think Sepsis' if any red score (3) or total NEWS-2 is 5 or above





### **ANY AMBER FLAG PRESENT?** Relatives concerned about mental status Acute deterioration in functional ability **Immunosuppressed** Trauma / surgery / procedure in last 8 weeks Respiratory rate 21-24 Systolic BP 91-100 mmHg Heart rate 91-130 or new dysrhythmia Temperature <36°C Clinical signs of wound infection

## **FURTHER REVIEW REQUIRED:**



- SEND BLOODS AND REVIEW RESULTS
- ENSURE SENIOR CLINICAL REVIEW within 1HR

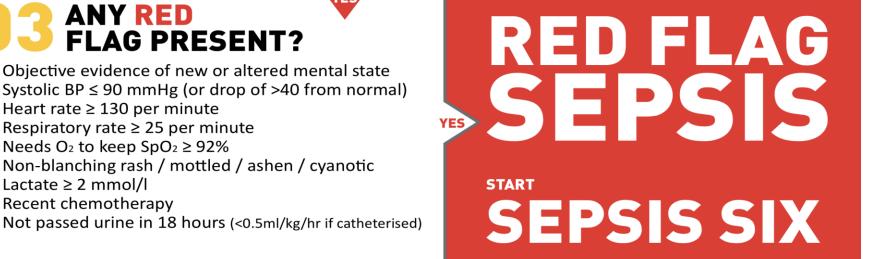
TIME OF REVIEW: **ANTIBIOTICS REQUIRED:** 

Yes No

Every second counts: For every hour there is a delay in treatment, the risk of death rises 8%

### **ANY RED FLAG PRESENT?** Objective evidence of new or altered mental state Systolic BP $\leq$ 90 mmHg (or drop of >40 from normal) Heart rate ≥ 130 per minute Respiratory rate ≥ 25 per minute Needs $O_2$ to keep $SpO_2 \ge 92\%$ Non-blanching rash / mottled / ashen / cyanotic Lactate ≥ 2 mmol/l

Recent chemotherapy





# Vital signs indications



- Altered mental status
- ❖ Fever (> 38.3°C) or Hypothermia (temperature < 36°C)</p>
- ❖ Heart rate > 90/min
- Tachypnoea (rapid breathing)
- Hypotension (SBP < 90 mm Hg, or an SBP decrease > 40 mm Hg in adults)
- Hyperglycaemia (plasma glucose 7.7 mmol/L) in the absence of diabetes
- Hypoxia (low oxygen)
- ❖ Significant oedema or positive fluid balance (> 20 mL/kg over 24 hr)
- ❖ WBC count > 12
- ❖ WBC count < 4
- Plasma C-reactive protein more than 8 mg/L

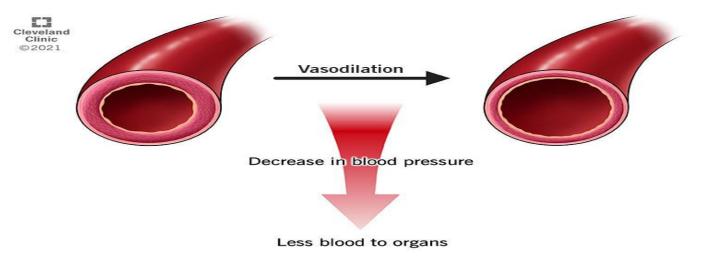


# **Septic shock- Definition.....**

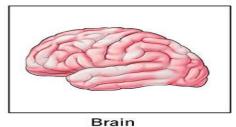


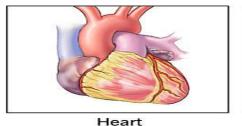
'Septic shock is a subset of sepsis where particularly profound circulatory

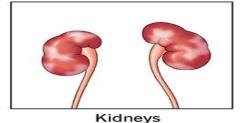
cellular and metabolic abnormalities substantially increase mortality.











# 'I thought I was going to die as I couldn't catch my breath'

East London
NHS Foundation Trust

Tom Perry, 25, thought he was coming down with flu but his condition deteriorated rapidly . . leaving him fighting for life





When Tom Perry woke last Christmas morning feeling unwell, he had no idea how close to death he would come. "I thought I was going down with flu," explains Tom, 25, from Salford. "I felt hot and cold, ached all over and had no appetite so I couldn't eat Christmas dinner.

"I thought if I just rested, I'd feel better. But I got worse."

Two days later his mum took Tom to the doctor's. A chest infection was diagnosed and he was given antibiotics. But that night he got so breathless he couldn't lie down. Kathryn called 111 and a rapid response paramedic was sent out.

"Everything happened really quickly," says Tom. "The paramedic said my temperature was really high and I had tachycardia (a very fast pulse) so I needed to get to hospital immediately."

At A&E, he was diagnosed with pneumonia and transferred to the Critical Care Unit.



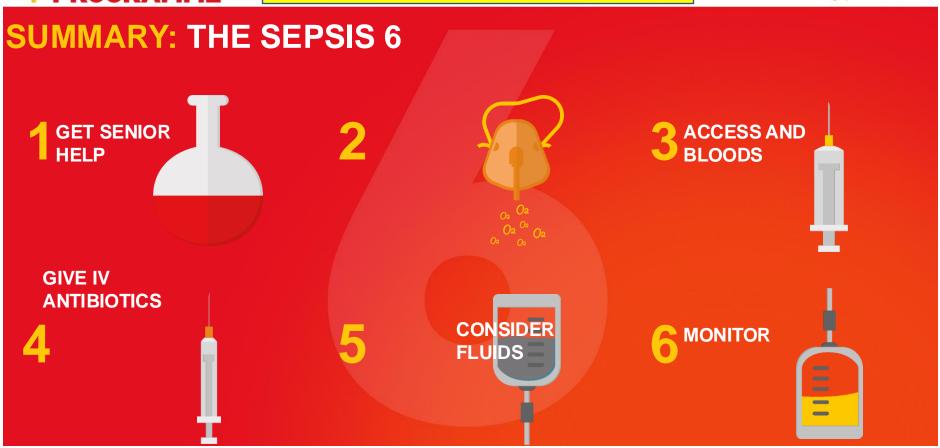
As medics struggled to reduce Tom's temperature and heart rate and help him breathe, they also found we care he hadn't passed urine all day which meant his kidneys weren't functioning properly. He was put on life we respect port. A CT scan revealed his lungs were filled with three litres of pus so chest drains were inserted we are inclusive in it away.





### The 'Golden' Hour







Every second counts: For every hour there is a delay in treatment, the risk of death rises 8%



# Around 40% of survivors of sepsis suffer at least one of a range of **physical**, **cognitive**, and **psychological** sequence

(The acute phase is resolved but there
Are complications from the treatment.

They may be admitted to hospital again and again after discharge,
Patients have a higher risk of developing falls and or dementia)



# Post Sepsis –Syndrome (PSS) & disability



### PSS: physical, psychological and emotional problems, lasts between 6 and 18 months, sometimes longer

- Lethargy/excessive tiredness
- Poor mobility / muscle weakness/joint and muscle pains
- Breathlessness / chest pains
- Swollen limbs (excessive fluid in the tissues)
- Insomnia
- Hair loss
- Dry / flaking skin and nails
- Taste changes
- Poor appetite
- · Changes in vision
- Changes in sensation in limbs
- Repeated infections from the original site or a new infection
- Reduced kidney function
- · Feeling cold



# Patients more at higher RISK to develop Sepsis



- Communal living (ward, care home, prison)
- Immunocompromised agranulocytosis
- Constipation 
   perforation/bowel necrosis
- Pneumonia, Covid-19
- Patients with a Urinary tract infection
- Poor dentition even after a dentist visit
- Meningitis
- Cellulitis, infected wound



# ITS NOT FLU ITS SEPSIS.....









# Any questions?





Break - 10 mins

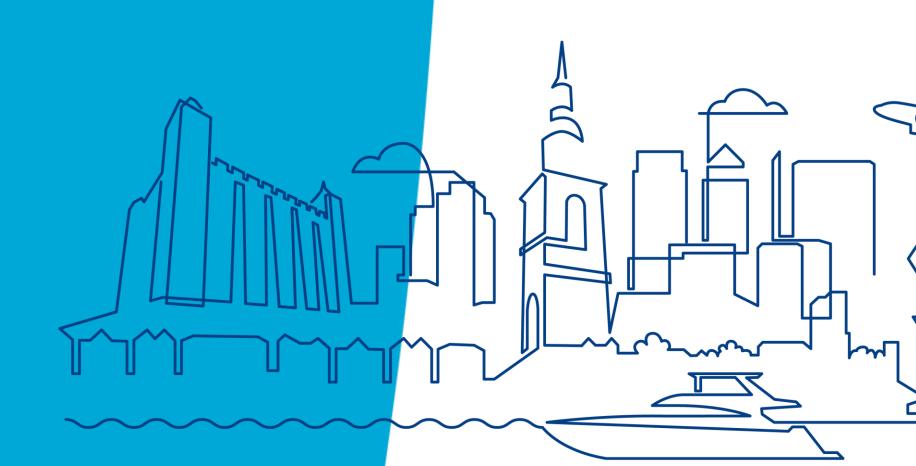
Stay logged in ©





# trition and Hydration

Nutrition and Dietetics





# Content

**Learning Outcomes** 

Nutrition in Mental Health

**Nutrition Risk** 

**Nutrition Screening** 

Nutrition in ELFT – get involved!





# **Learning Outcomes**





- Understand the importance of nutrition in mental health
- Be able to complete the SANSI, the trust nutrition screening tool
- Offer the trust first-line dietetic advice
- Be able to locate nutrition and dietetics resources





# **Nutrition in Mental Health**





## What is a Dietitian?



Has anyone worked with a dietitian before?

- Translate nutrition science into understandable, practical information about food
- Offer diet therapy and advice
- Work with and train the multi-disciplinary team
- Carry out research
- Develop policies and guidelines





## What is Nutritional Risk?



**Nutrition risk can be related to** a health problem, medical condition, diet deficiency or other issue that can affect the health of an individual and can be improved through a dietary intervention.

## **Undernutrition**

Nutritional deficits
Underweight
Refeeding Syndrome
Sarcopenia



## **Overnutrition**

Excess nutrition
Overweight
Obesity
Chronic disease
Micronutrient deficiencies



## **Nutrition Risk and health complications**



## Undernutrition

Increased mortality risk
Increased infection risk
Reduced immunity
Reduced muscle strength
Depression, apathy
Hypothermia

Poor wound healing Longer stay in hospital



## **Overnutrition**

Premature death

Respiratory problems

Osteoarthritis

Cardiovascular Disease

Hypertension

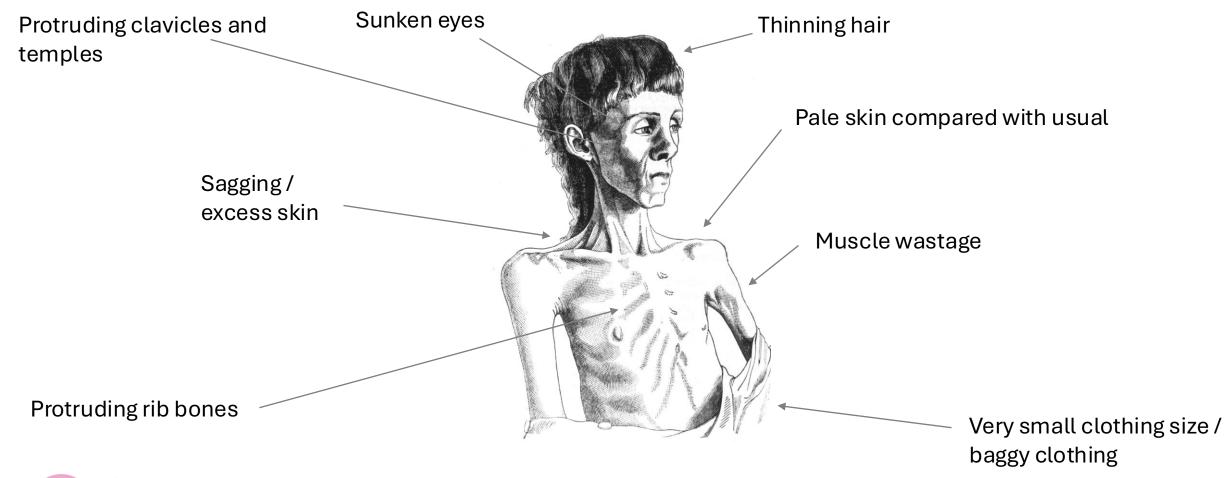
Type 2 Diabetes Mellitus

Limited mobility



# **Signs of Malnutrition**







## Dehydration



## If someone is malnourished, they are probably dehydrated too

## Signs:

Dark urinary output

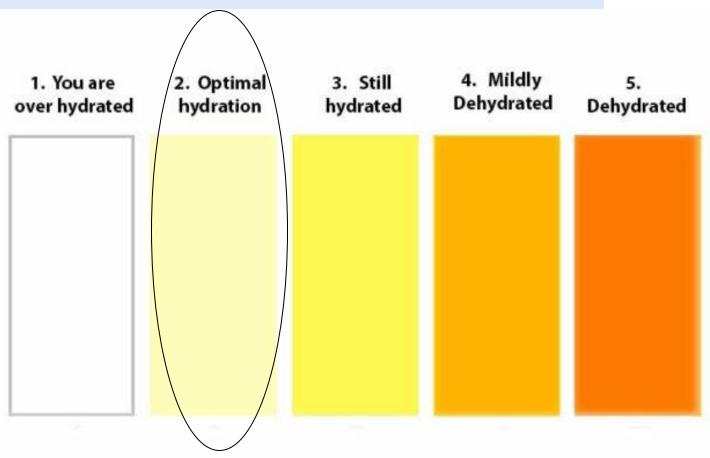
Reduced urination volume and frequency

Dry mouth, lips or eyes

Non-elastic skin turgor,

Dizziness, fatigue





<u>Considerations</u>: diabetes, overheated, constipation, alcohol and substance misuse, psychosis

## Which physical conditions can impact nutrition risk?



#### **Digestive Problems**



Cancer



Wounds and infections



**Enteral tube feeding** 



#### **Allergies and intolerances**



Coeliac disease



**Neurological Conditions** 



**Diabetes** 



#### Which mental health factors are associated with nutritional risk?



#### Conditions

Anxiety
Depression
Personality Disorder
Schizophrenia
Addiction
Chronic Fatigue
Obsessive Compulsive Disorder
Eating Disorder
Learning Disabilities
Autism
Downs Syndrome



## Psycho-social factors

Food Insecurity
Unfamiliar Food
Apathy
Lack of choice and dignity
Dependence to eat
Homelessness
Unfamiliar environment
Social isolation
Lack of education
Communication barriers



Mental Illness and Food Insecurity: Smith et al 2023



# **Nutrition Screening**





## **Screening for Nutrition Risk**



Which tool?

SANSI – St Andrew's Nutrition Screening Instrument



When?

Within 48hrs of admission and monthly thereafter



Why?

Safety, guidelines, promotes better clinical outcomes



Who?

Everyone's business!



How?

Let's get into it...



# How to Complete SANSI on RIO



Step 1 Body Mass Index

Step 2 Weight Change

Step 3 Nutritional Factors

Step 4 Risk level and

Action

S

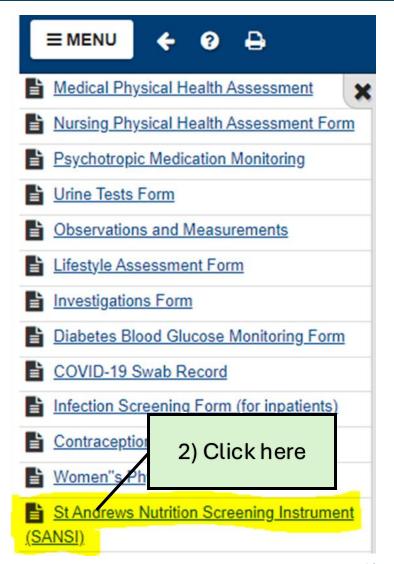




# SANSI form on RiO

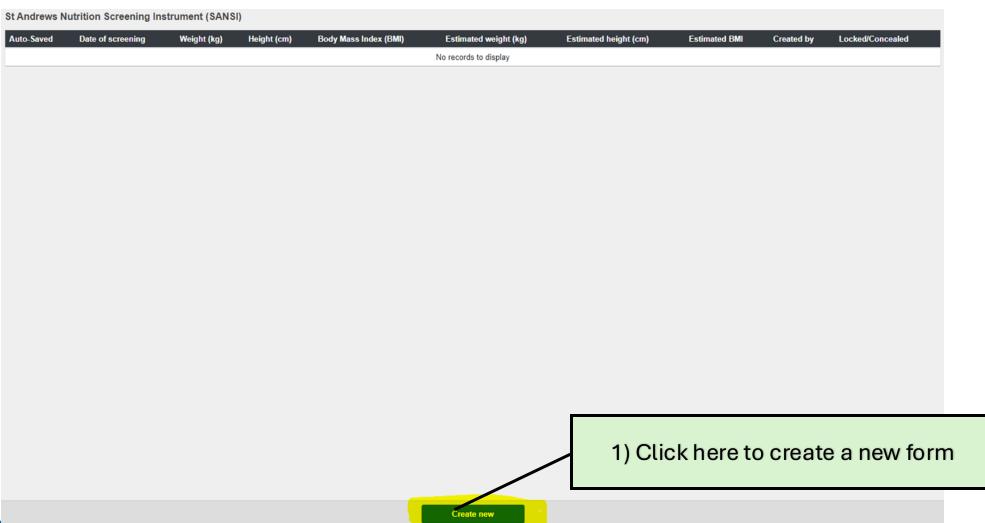


#### Case Record Menu - Case Record + Client Demographics River View Progress Notes East London Patient Record (HIE) **BLMK Shared Care Record** RIO Patient Record Summary Liaison Psychiatry Form Documents & Editable Letters Medical Documentation (Mental Health) Conditions (SNOMED)/Diagnosis (ICD10) Click here Risk Information Physical Health Physical Health Assessment Forms (MH) Physical Health Assessments (CommHealth) Height, Weight and BMI Record Physical Health CQUIN Overview Physical Health CQUIN missing data



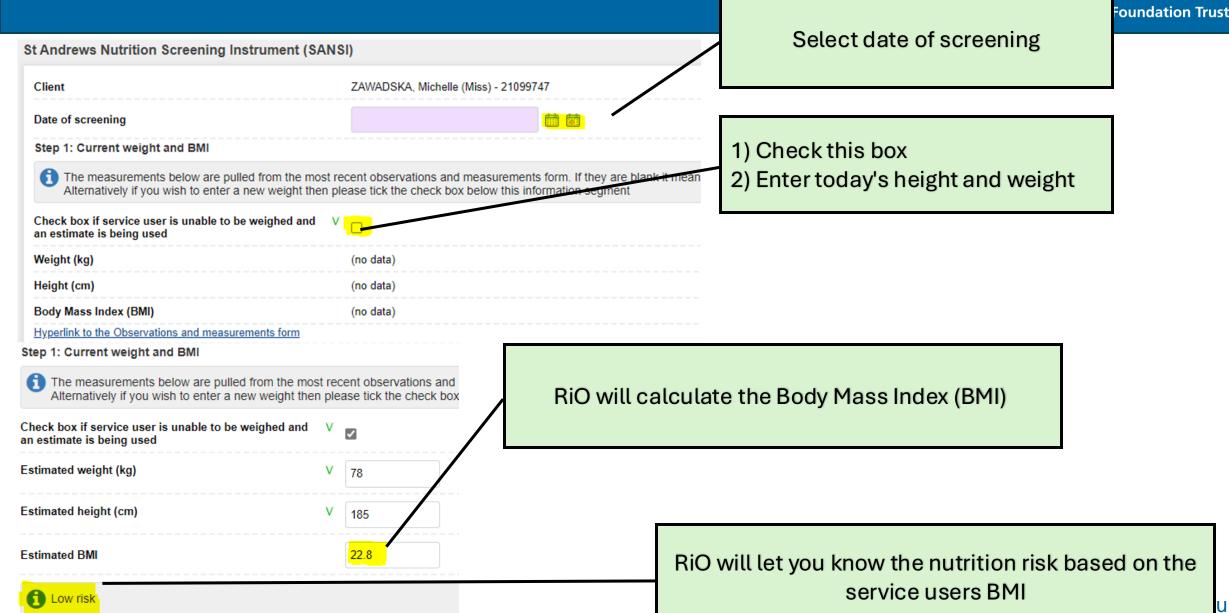
# SANSI form on RiO







Step 1 – Current Weight and Body Mass Index **⊑**ast London

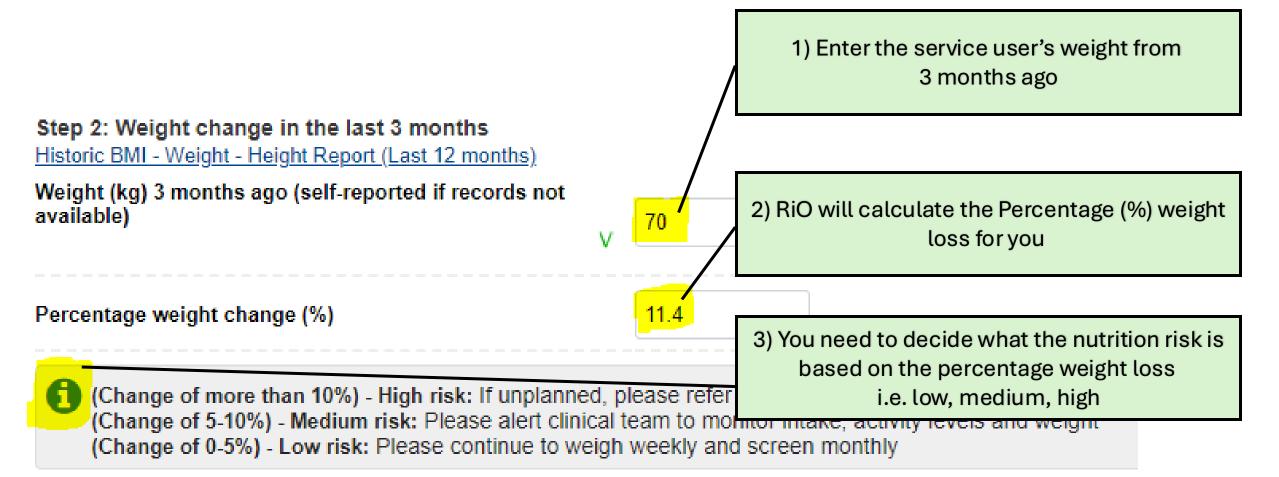


Hyperlink to the Observations and measurements form

uk

# Step 2 – Percentage weight change

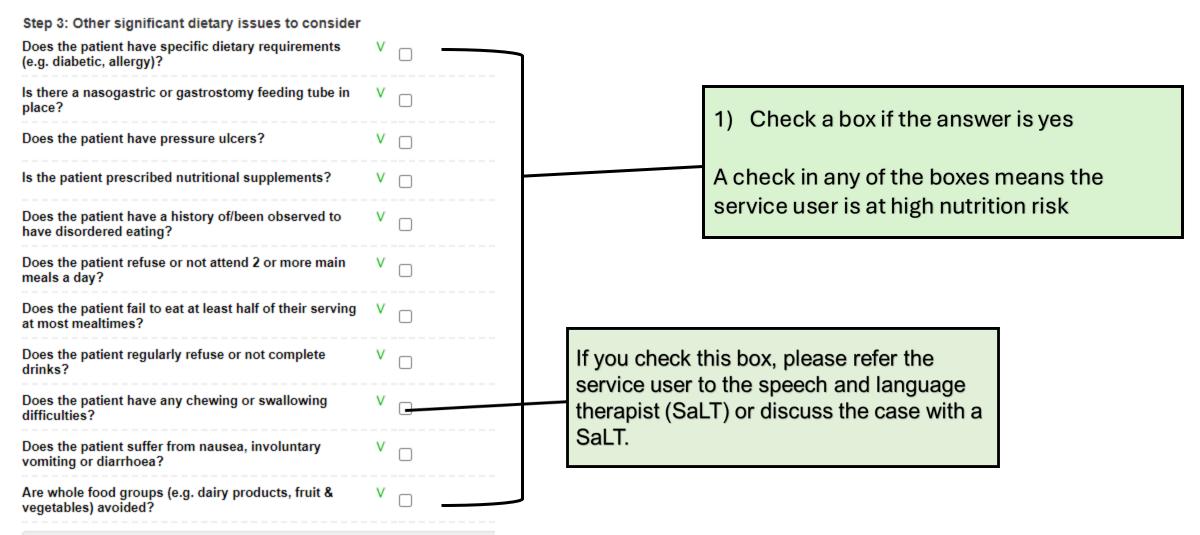








# Step 3 – Nutritional Considerations





# Step 4 – Score and Actions

Please score the nutrition risk score below as the highest risk from any of the three steps above

Step 4: Action Plan / Comments

**Nutrition Risk** 

Refer to dietitian

Select:
Malnutrition
Overweight
Obesity
Combination

East London

Nutrition Risk Score V Please Select • Select: low, medium or high risk

Action plan - please tick all that apply
No immediate action

Offer first-line advice

Commence 2-4 weeks of monitoring charts

Alert clinical team

Tick if the risk is medium or high

Tick if the risk is medium or high

Tick if the risk is medium or high

Please Select

Tick and manually refer if nutrition score is high

Comments (including what you think the cause of the nutrition risk is and how long it has been persisting)

🚺 It is recommended that you tick the box below to refer to a dietitian if the Nutrition Risk Sc<u>ore is bigh</u>

Add comments about reasons for referral or actions taken

Comment if step three was with the service user, completed on their behalf, or not answer it at all.



The link below will require you to initially log into the ELFT intranet. Once logged in close the

Link to the nutrition and dietetics intranet page with all the resources available

# Save



Step 4: Action Plan / Comments					
Please score the nutrition risk score below as the highest risk from any of the three steps above					
Nutrition Risk	V Please Select ✓				
Nutrition Risk Score	V Please Select ▼				
Action plan - please tick all that apply					
No immediate action	V _				
Offer first-line advice	V n				
	V				
Commence 2-4 weeks of monitoring charts	V _				
Alert clinical team	v _				
1 It is recommended that you tick the box below to refer to a dietitian if the Nutrition Risk Score is high					
Refer to dietitian	v _				
Comments (including what you think the cause of the nutrition risk is and how long it has been persisting)					
,					
The link below will require you to initially log into the ELFT intranet. Once logged in close the window and open th					
Link to the nutrition and dietetics intranet page with all the	resources available	Select 'Save'			
	Save	Cancel			





# Step 1: Calculate Body Mass Index (BMI)

BMI = Weight (kg) ÷ Height (m) ÷ Height (m) British Heart Foundation BMI calculator

# Step 2: Calculate % Weight Loss

% Weight Loss = (Starting weight - current weight) ÷ (starting weight) x 100
Calculator





# **Interpreting SANSI Results**



- 1) Nutrition risk (low, medium, high)
- 2) Gather essential information, raise concerns, inform clinical practice
- 3) Guidance around proposed action plans





First-line dietary advice





# **First Line Nutrition Support**

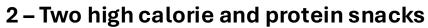


#### Resources to promote weight gain

One, two, three.

A healthy weight for me!

**1 - Pint fortified milk (or dairy alternative) daily** Make fortified milk with full-fat milk and skimmed milk powder, and add to beverages and food



Nutritious snacks or drinks in between main meals, such as cheese and crackers, protein yoghurts, egg or tuna sandwiches, meat slices, nuts and seeds.

#### 3 - Three Fortified meals

Add extra cheese, milk, condiments, syrups to meals to add calories / protein. Offer puddings.









<u>'BAPEN keeping-healthy-on-a-high-protein and calorie-diet.pdf</u>

BAPEN making-every-mouthful-count.pdf

Fortified milk and food fortification with dairy products.docx

Fortified milk alternative.docx

Oral nutrition support: resources to increase intake of protein and energy



# **First Line Nutrition Support**



#### **MEALTIME ENVIRONMENT**

#### Social/Visitors



#### **Protected** mealtimes



Little and often





Music



High energy menu









#### RECORDING, REVIEWING AND REFERRING

#### Weekly nutrition screen

#### Food record charts





Vitamins and minerals prescription



Referto community dietitians



**Check dental hygiene** 











Discuss with the **MDT eg SLT** 



# **First Line Hydration Support**

**Dilute** 

sugary

drinks

with

water





# Water always wins!

#### **Fluid Record Chart**

ervice User:	FLUID INTAKE (ml)	for Staff Completion FLUID OUTPUT (ml):	Date:	
TIME	Oral/Enteral/Subcutaneous/IV	Urine/Vomit/Eaeces/Saliva	(ml) -ye/+ye	
00.00-01.00		OTHER POINTED AND CONTROL	(1117) 220-120	
01.00-02.00				
02.00-03.00				
03.00-04.00				
04.00-05.00				
05.00-08.00				
08.00-07.00				
07.00-08.00			1	
08.00-09.00				
09.00-10.00				
10.00-11.00				
11.00-12.00				
12.00-13.00				
13.00-14.00				
14.00-15.00				
15.00-16.00				
16.00-17.00				
17.00-18.00				
18.00-19.00				
19.00-20.00				
20.00-21.00				
21.00-22.00				
22.00-23.00				
23.00-00.00				
TOTAL				
	Estimating F	luid Intake		
	ble to estimate oral intake, and us	e syringe readings for enteral:		
1 cup	250ml	1 teaspoon 5		
1 soup bowl	350ml		1 tablespoon 15ml 1 can fizzy drink 330ml	



**Avoid** large quantities of **sugary drinks** 

#### Fluid-rich foods





We care
We respect
We are inclusive

#### **Rehydration Solution**



#### **Decaf** hot drinks



## First line Healthy Eating advice



# One, two, three, four Changes for a healthy weight and more!

#### **0-1 Sugary Drink**

Encourage s/users to drink **no more** than one glass (150ml) of sugary drinks per day.

#### 2 - Two Balanced snacks

Support s/users who enjoy snacks, to eat **no more** than two balanced snacks per day.

#### 3 - Three Balanced meals

Signpost s/users to resources and menu options that are balanced and varied.

#### 4 - Four activities

Encourage s/users to be aim for at least 30 minutes of physical activity four times a week.





'The Eatwell Plate' NHS

What does 100kcals look like? (British Heart Foundation)

Snack ideas Diabetes UK

5 a day'

Easy Read Weight Loss Guide



Weight management: Establish behaviours that contribute to a person's ability to attain and maintain a healthy weight.

Healthy eating: Eating a variety of foods that give you the nutrients to maintain good health and feel good.



## First line Healthy Eating advice



#### Resources to promote healthy weight

Veg at each meal



Healthy menu options





**Check capacity**, agree goals



Onward referral



Reduce snacks, portions, puddings and sugary drinks



Weekly nutrition screen



Liaise with MDT











# Referring to adult ELFT Dietitians



#### **Mental Health, Learning Disabilities and Forensics:**

Complete SANSI, Offer first-line advice and complete 2-4 weeks of monitoring charts

Complete the form <a href="https://forms.office.com/e/BbkBmbGBdV">https://forms.office.com/e/BbkBmbGBdV</a> and email <a href="elft.dietitians@nhs.net">elft.dietitians@nhs.net</a>



<u>Disordered Eating in NEL: https://www.elft.nhs.uk/services/east-london-eating-disorder-service-adults</u>

Community Eating Disorders in B&L: https://www.elft.nhs.uk/services/community-eating-disorder-service-bedfordshire-and-luton

SCYPS in Newham: https://www.elft.nhs.uk/scyps/our-services/community-childrens-nursing-service/dietetics-service

CAMHS in NEL: https://www.elft.nhs.uk/services/camhs-community-eating-disorder-service-east-london

CAMHS in B&L: https://www.elft.nhs.uk/camhs/self-referral-form-bedford-north-bedfordshire-camhs



# Which dietetics team?

## **Nutrition and Dietetics Resources**



#### Intranet

https://www.elft.nhs.uk/intra net/nutrition-and-dietetics



## **Nutrition Policy**

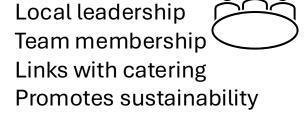
https://www.elft.nhs.uk/information-about-elft/trust-policies-procedures



#### **Nutrition Manual**

ELFT MH NUTRITION
MANUAL - Apr'24.docx

SANSI guide
Diet Sheets
Monitoring Charts
External referrals



**Food Committees** 

# **Nutrition Training**

e-learning:

https://learningacademy.elft.nhs.uk/







# **Learning Outcomes**





- Understand the importance of nutrition in mental health
- Be able to complete the SANSI, the trust nutrition screening tool
- Offer the trust first-line dietetic advice
- Be able to locate nutrition and dietetics resources





## Feedbac

https://forms.office.com/e/0kd8swJGTR





#### elft.dietitians@nhs.net

@ ELFT\_Nutrition

Please contact the dietitians if you would like to arrange nutrition screening training for your team.

#### Contact us

East London NHS Foundation Trust Robert Dolan House Trust Headquarters 9 Alie Street London E1 8DE

Tel: 020 8548 5550 Email: elft.communications@nhs.net Web: elft.nhs.uk

- **™NHS\_ELFT**
- **f** EastLondonNHSFoundationTrust
- ▶ NHSELFT



# Test-run the SANSI







# Practice – RiO Dummy patient

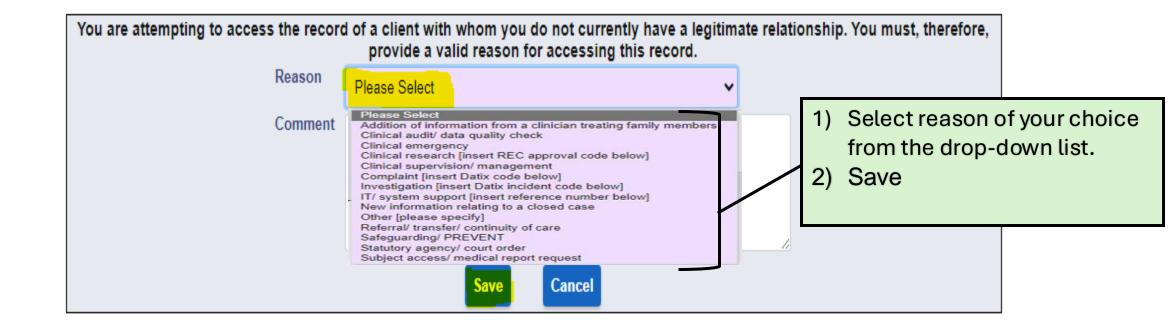


Client ID	Go	
NHS Number	Go	i
Alternative ID/System	Go	<u> </u>
	All systems  1) Type zztest	3) Search
Family name	zztest	
Given name	2) Select gender of your choice	
Gender	Male 2) Select gender of your choice	
First line of address		
Postcode		
Date of Birth	iii iii Exact match ✔	
Search for	Clients Only    Carers Only    Clients and Carers	
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# Practice – RiO Dummy patient



#### **Access Reason**





# Practice – RiO Dummy patient



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# Case Study: Nutrition Support



- Woman admitted to inpatient unit with severe depression, aged 38
- Weight history: 70kg (today), 78kg (last month), 80kg (last year)
- Height: 1.73m
- Lives independently, has a carer who helps with shopping once per week
- Reports poor sleep pattern and feeling fatigued

### **Questions**

What is her nutritional risk?

What else would you like to know to help you understand her nutritional risk?

What are the immediate strategies you would put in place?

What else would you do?



# Case Study: Nutrition Support



### What is her nutritional risk?

https://www.bapen.org.uk/screening-and-must/must-calculator Use this online calculator to calculate BMI and weight history

BMI = 23.4kg/m2 (healthy) (low risk)

Weight history = 10.3% loss in 1 month (significant) (high risk)

Nutritional complications = might be recently dependent for nutrition (poor motivation to prioritise nutrition) (high risk)

SANSI score = high risk, alert MDT, start nutrition care plan

What else would you like to know to help you understand her nutritional risk?

Dietary habits (meal pattern, favourite foods and drinks)

Social support to encourage nutrition

Other medications and diagnoses

What are the immediate strategies you would put in place?

High-energy high-protein menu options

Weekly weights

Food record charts

Prompting and encouragement with nutrition We are inclusive

What else would you do?

Refer to dietitian Liaise with MDT

# Case Study: Healthy Eating



- Gentleman started on antipsychotics for bipolar during admission, age 55
- Weight history: 80kg (today), 75kg (last month)
- Height: 1.68m
- Going to be discharged soon back to community with once daily carer for support washing and dressing
- Noticed he asks for double portions of meals during his admission

### **Questions**

What is his nutritional risk?

What else would you like to know to help you understand his nutritional risk?

What are the immediate strategies you would put in place?

What else would you do?



# Case Study: Healthy Eating



What is his nutritional risk?

https://www.bapen.org.uk/screening-and-must/must-calculator Use this online calculator to calculate BMI and weight history

BMI = 28.3kg/m2 (overweight) (medium risk)

Weight history = 6.7% gain in 1 month (significant) (medium risk)

Nutritional complications = large appetite (medium risk)

What else would you like to know to help you understand her nutritional risk?

Risk of metabolic complications: blood test for HbA1c and lipids

Other medications and diagnoses

Motivation to change dietary behaviours

What are the immediate strategies you would put in place?

Healthy Eating menu options and snacks

Weekly weights and food record charts

Discussion with psychiatrist and pharmacy regarding optimised antipsychotics prescription for community

Liaise with OT re meaningful activities

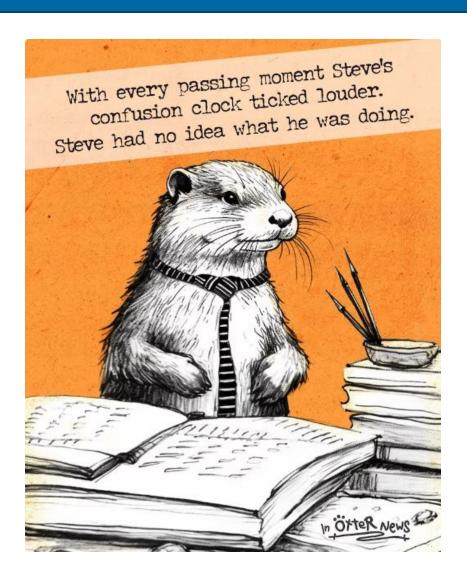
What else would you do?

Ask GP to monitor obesity risk Refer to a local healthy eating programme



# Questions





If you feel like Steve, please speak to your wards physical health link nurse or contact the dietitians.



# Evaluation



Kindly evaluation this session.

Please click on the link in the chat to complete the form.

Thank you.

https://forms.office.com/e/0kd8swJGTR





# Break 10 minutes





# **Diabetes Mellitus**

**Diana Igwe** 

**Diabetes Specialist Nurse Lead for Mental** 

Health



# Learning outcomes



- To be able to understand what is diabetes/main types and other types of diabetes.
- To have a clear understanding of management/treatment of Type 1 and Type 2 diabetes.
- To understand the causes/risk factors/symptoms of diabetes.
- To be aware of different treatment use in the management of diabetes e.g. tablets/insulin/SGLT- 2/GLP-1.
- To develop an understanding on the correct procedure for insulin administration and techniques.
- To be able to have a clear understanding on the treatment and management of both hypoglycaemia & hyperglycaemia.
- To be aware of the risk of long-term complications of diabetes.
- Evaluation.



# Something to think about



- 1 in 4 people will experience a mental health problem of some kind each year in England.
- 1 in 6 people report experiencing a common mental health problem (like anxiety and depression) in any given week in England.
- Reports from both England and Wales suggest that:
- Approximately only 1 in 3 adults with a common mental health problem are currently getting <u>treatment</u> in the form of <u>talking therapies</u>, <u>medication</u> or both.
- The most common treatment offered is <u>psychiatric medication</u>.



# Group Work – 5 minutes



What is diabetes?

What are the signs & symptoms?

Type answers into the chat/unmute your mics/use the raise hand icon







Diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces (WHO 23).



# The Pancreas

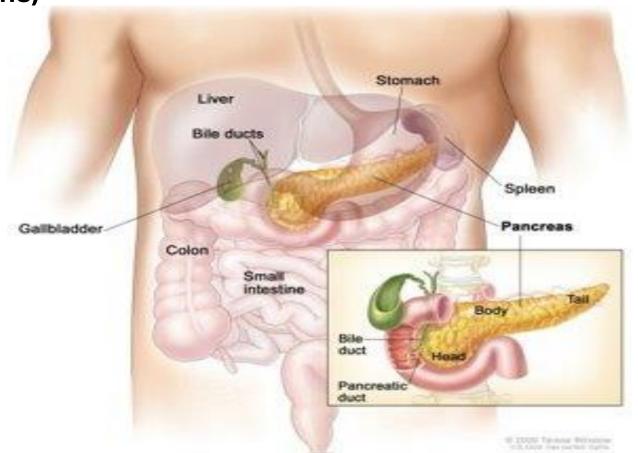


The pancreas has two main roles:

It releases digestive enzymes to breakdown and digest food (exocrine cells)

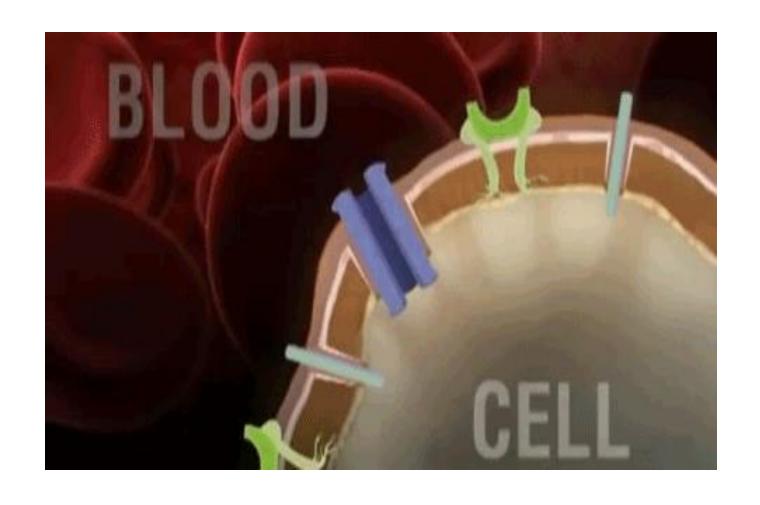
It makes hormones to regulate blood glucose (endocrine cells – the islets of

Langerhans)













# Causes/risk factors of Diabetes

1) Combination of lifestyle and genes that put people at risks of getting Type 2 diabetes

Age: If 40 - or over 25 if you're African- Caribbean, Black African or South Asian

**Weight:** If overweight/obese – particularly around the belly

Ethnicity: If Black African, African-Caribbean, South Asian or Chinese

Family link: If your parent, brother or sister with diabetes

### **People suffering from Mental illness**

- 2) Amount of glucose in your blood is too high because the body cannot use it properly
- 3) Blood glucose levels are outside the normal range of 4-7 mmol/l
- 4) Metabolic syndrome (obesity, high blood pressure, high glucose)
- 5) High cholesterol
- 6) Medications used in SMI e.g. clozapine, olanzapine







- ✓ Going to the toilet more often, especially at night
- ✓ Feeling more tired
- ✓ Feeling extremely thirsty
- ✓ Genital itching or thrush
- ✓ Blurred vision
- Loosing weight unexpectedly
- Cuts and wounds taking longer to heal





# Blood Glucose monitoring

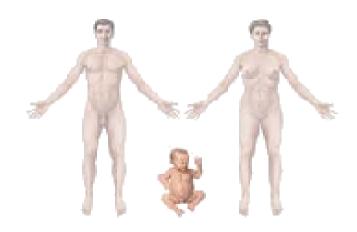
# Achieving optimal blood glucose is important in all types of diabetes to reduce the risk of developing complications.

Diabetes UK 2023



## Classification (types) of Diabetes Mellitus





Type 1 diabetes - Autoimmune

Pancreas makes no insulin. Treated with Insulin injections.

### Other Types of Diabetes

- Drug induced, eg. steroids
- Genetic eg. MODY

We care

- Pathology related eg. Cancer of the pancreas and Pancreatitis
- Gestational Diabetes



Type 2 diabetes – Metabolic

Pancreas makes some insulin and/or pancreas is unable to use insulin properly.

Treated with diet, physical exercise, weight loss, tablets and or insulin.

# Types 1 Diabetes



- Type 1 diabetes mellitus
- 10% 15% of diabetics
- Onset- young and sudden
- Total destruction of pancreas- autoimmune
- BMI- low to normal.

We are inclusive

- Ethnicity- commonly white
- Treatment- always insulin.

If BG>13, ketones in urine- if +, Ward Doctor to review and if >= 2+ to refer to A&E.

Check blood ketone if blood glucose is greater or equal to 13.0 mmols/l, and refer to blood ketone guide. - Monitor for signs and symptoms of Diabeteic keto acidosis (DKA)

- keep a small glass or juice in patient room and some Carbohydrate food at night just in case the respect the respect that the respect is a low blood sugar and unable to call for assistance.

# Management of Type 1 DM



Check whether patient using a Libre 2 sensor, if not

- Check capillary blood glucose four times a day before each meal, administration on insulin injection and before bed.
- If patient is not eating and drinking well, may need to check BG two hours after main meal and monitor his/her food/fluid intake on a chart
- Refer to a Dietitian if appropriate
- Omit/Delay rapid acting insulin if BG < 4.0mmols/I and contact Ward Doctor/Diabetes</li>
   Specialist Nurse
- Monitor for signs and symptoms of hypoglycaemia







# Type 1 and treatment



- No oral medications.
- Only insulin
- Basal + mealtime/Quick acting insulin with meals
- Insulin sensitive
- Carb counting- 1 unit: 10g of carbs= 3 4 mmol/l/drop.
- BM before each meals- 5 to 7 mmol/l.
- Never stops insulin even when ill.
- If BM>13, check for ketones, if 1+, ask ward/On call doctor to review and if 2+ refer to A&E.



# Type 2 Diabetes



- Type 2 diabetes mellitus
- 85% of all cases
- Develops when insulin- producing cells can't produce enough insulin or the insulin produce does not work properly called insulin resistance
- Insulin resistance leads to high BG levels can cause serious health problems
- Hyperosmolar Hyperglycaemia State (HHS) BM>35 40mmol/l but normally indicate HI.. Hi.. on BG meter
- Onset- used to be 40 years old but younger age these days
- BMI- 25 +
- Ethnicity- 5x in South Asian and Afro-Caribbean, Black African
- Treatment-lifestyle, oral meds, injectables.





# Management of Type 2 DM

- Check blood glucose as recommended by DSN/Ward Doctor e.g. before each meal/Two hours after and before administration of insulin injection
- Give medication as prescribed
- Omit/Delay rapid acting insulin if BG < 4.0 mmols/l and contact Ward Doctor/Diabetes Specialist Nurse
- Monitor for signs and symptoms of hypoglycaemia
- Check blood ketone if blood glucose is greater or equal to 20.0 mmols/l and inform ward Doctor/DSN
- Monitor for signs and symptoms of hyperglycaemia/HSS (Hyperosmolar Hyperglycaemic State)
- Monitor diet/fluid intake as per recommendation



# Treatment



### There are 3 main treatments

- Healthy eating, being physically active and keeping to a healthy weight
- Medication tablets and insulin injections
- Weight loss surgery (bariatric surgery)



# Medication/tablet



- Biguanides e.g. Metformin, Metformin SR helps the insulin to work better
- Sulphonylureas e.g. Gliclazide, Glimepiride, etc Squeezes the pancreas to produce more insulin
- Thiazolidinedione's e.g. Pioglitazone helps the body use insulin better
- DPP-4 inhibitors e.g. Sitagliptin, Linagliptin etc. lowering of postprandial glucose
- SGLT-2 inhibitors e.g. Dapagliflozin, Canagliflozin, Empagliflozin etc. Cardiac and kidney protection, and moves the glucose and excess nutrients from the blood stream to the kidneys and then pass through urination
- Incretin mimetics (GLP-1 analogues) inj e.g. Liraglutide, Dulaglutide, Semaglutide, Mounjaro etc. (injection only) helps in the production of insulin, reduce hunger and reduce glucose production in the liver



# Injection



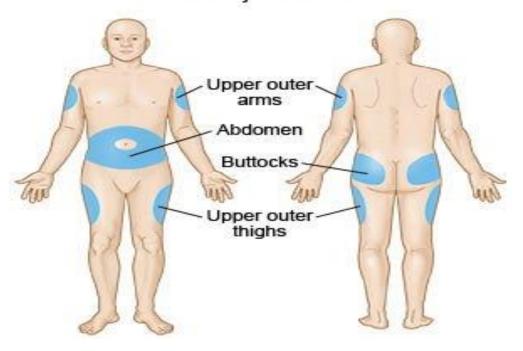
- Needles- 4mm, 5 mm, 6mm, 8mm
- Room temperature
- Mixed insulin if cloudy insulin
- 2 units flush/air shot
- Subcutaneous injection.
- Rotation of injection site.
- 10 seconds count down.
- No rubbing.
- Don't inject in lumpy skin.







### Insulin Injection Sites





# What is a hypo?



Hypoglycaemia is a lower than normal level of blood glucose less than 4.0mmol/L.

Normal blood Glucose level is between 4-7mmol/l

**JBDS 2023** 



# Signs and Symptoms of Hypoglycaemia



- Tingling Around Mouth/Lips
- Sweating
- Agitation/anxiety/mood changes
- Confusion
- Hunger
- Visual disturbances
- Dizzy or light-headedness
- Slurred speech
- Headache
- Trembling/shaking
- Becoming pale
- Loss of Consciousness





# Blood glucose/Hba1c or IFCC

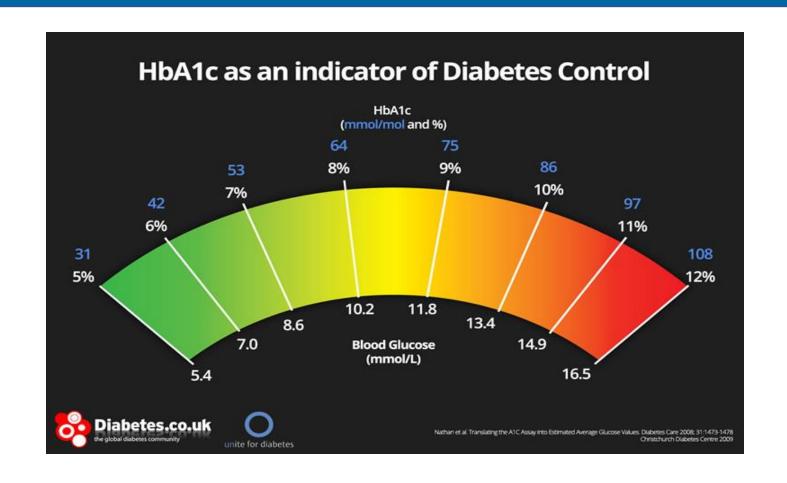


- Fasting or before meals: 4 6 or 5-7 mmols/l
- Two hours after meals: < 8.5 or 10 mmols/l depending on age.
- HbA1c/IFCC: < 6.5% or 48 (depending on age of patients)



# HbA1c/IFCC indicator







# Treatment for Mild Hypoglycaemia



First line Treatment: 15-20grams fast acting carbohydrate

One of the following should be given immediately (as long as the patient is conscious and able to swallow).

- 5-7 Dextrosol® tablets (or 4-5 Glucotabs®)
- 1 bottle (60ml) Glucojuice®
- 150-200ml pure fruit juice e.g. orange
- 3-4 heaped teaspoons of sugar dissolved in water
- 4 Jelly babies
- Repeat blood glucose measurement 10-15 minutes later. If it is still less than 4.0mmol/L, repeat step 1 (no more than 3 treatments in total).
- Once BG>4mmols/L: you MUST give long-acting food e.g. toast, 2xdigestive biscuits, full fat milk (not soya) and next meal if due (must contain carbohydrate)



# Hyperglycaemia







CAUSES:

Too much food, too little insulin, illness or

stress.

ONSET:

Gradual, may progress to diabetic coma.

BLOOD SUGAR: Above 200 mg/dL.

MELLE

FREQUENT URINATION

**BLURRED VISION** 

Acceptable range: 115-200 mg/dL.

### SYMPTOMS









EXTREME THIRST



DROWSINESS



WHAT CAN YOU D0?







# Blood glucose monitoring sheet

	DATE	FASTING	2 hours AFTER BREAKFAST	BEFORE LUNCH	2 hours AFTER LUNCH	BEFORE SUPPER	2 hours AFTER SUPPER	NIGHT
MON								
TUES								
WED								
THUR								
FRI								
SAT								
SUN								



# Major complications of Diabetes



# **Major Complications of Diabetes**

### Microvascular

### Macrovascular

### Eye

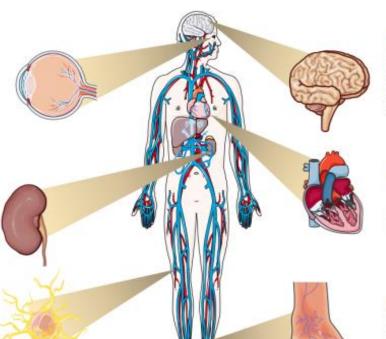
High blood glucose and high blood pressure can damage eye blood vessels, causing retinopathy, cataracts and glaucoma

### Kidney

High blood pressure damages small blood vessels and excess blood glucose overworks the kidneys, resulting in nephropathy.

### Neuropathy

Hyperglycemia damages nerves in the peripheralnervous system. This may result in pain and/or numbness. Feet wounds may go undetected, get infected and lead to gangrene.



### Brain

Increased risk of stroke and cerebrovascular disease, including transient ischemic attack, cognitive impairment, etc.

### Heart

High blood pressure and insulin resistance increase risk of coronary heart disease

### **Extremities**

Peripheral vascular disease results from narrowing of blood vessels increasing the risk for reduced or lack of blood flow in legs. Feet wounds are likely to heal slowly contributing to gangrene and other complications.



# Guide to happy feet



- Guide to Happy Feet
- Wash Feet every day
- Pat dry especially between toes
- Check for sensation with patient's eyes closed
- Ensure patient has properly fitting shoes/ slippers
- NEVER BAREFOOT
- Advise your patient to continue the above at home and explain the importance of good foot care.







# **Healthy Diet**



### **Encourage Patients to eat a Healthy Diet**





# Diabetes/Pre-Diabetes Appointment/Annual

Specialist advice if planning a family



Blood Glucose to be measured BP **Blood Fats – Cholesterol and triglycerides** eyes screening Feet and legs checked kidney function monitored **Dietary advice** referred to Pre-Diabetes/diabetes education see a diabetes Specialist Flu Vaccine, Covid vaccine Opportunity to talk about sexual health **Smoking advice** 

Patients to be referred to the Hospital diabetes team



# Case study



TM is a 30 years old, English gentleman, fairly thin, admitted to the ward from A&E, due to relapse of his Paranoid Schizophrenia and mild learning disability. He also has Type 1 diabetes since the age of 10 years old.

When talking to him in his room on admission, he said that he is not feeling well, feeling dizzy and sweaty.

What will be your immediate action plan, assessment and long-term care plan while he is on the ward?



# Referrals from the Ward



Urgent Referrals, contact the Diabetes Unit on 0207 909 3624. For routine referrals, please send email to elft.mhrefferals@nhs.net





# Thank you for your attention.

Any Questions?





# Evaluation and questionnaire

Inset link post day 1 evaluation and questionnaire.

