Early Recognition and Medication Decisions at the End of Life

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Content

- Recognition of the end of life
- Medication decisions;

1. Anticonvulsants
2. Diabetes medications
3. Cardiology medications – antihypertensives and diuretics
4. Anticoagulation

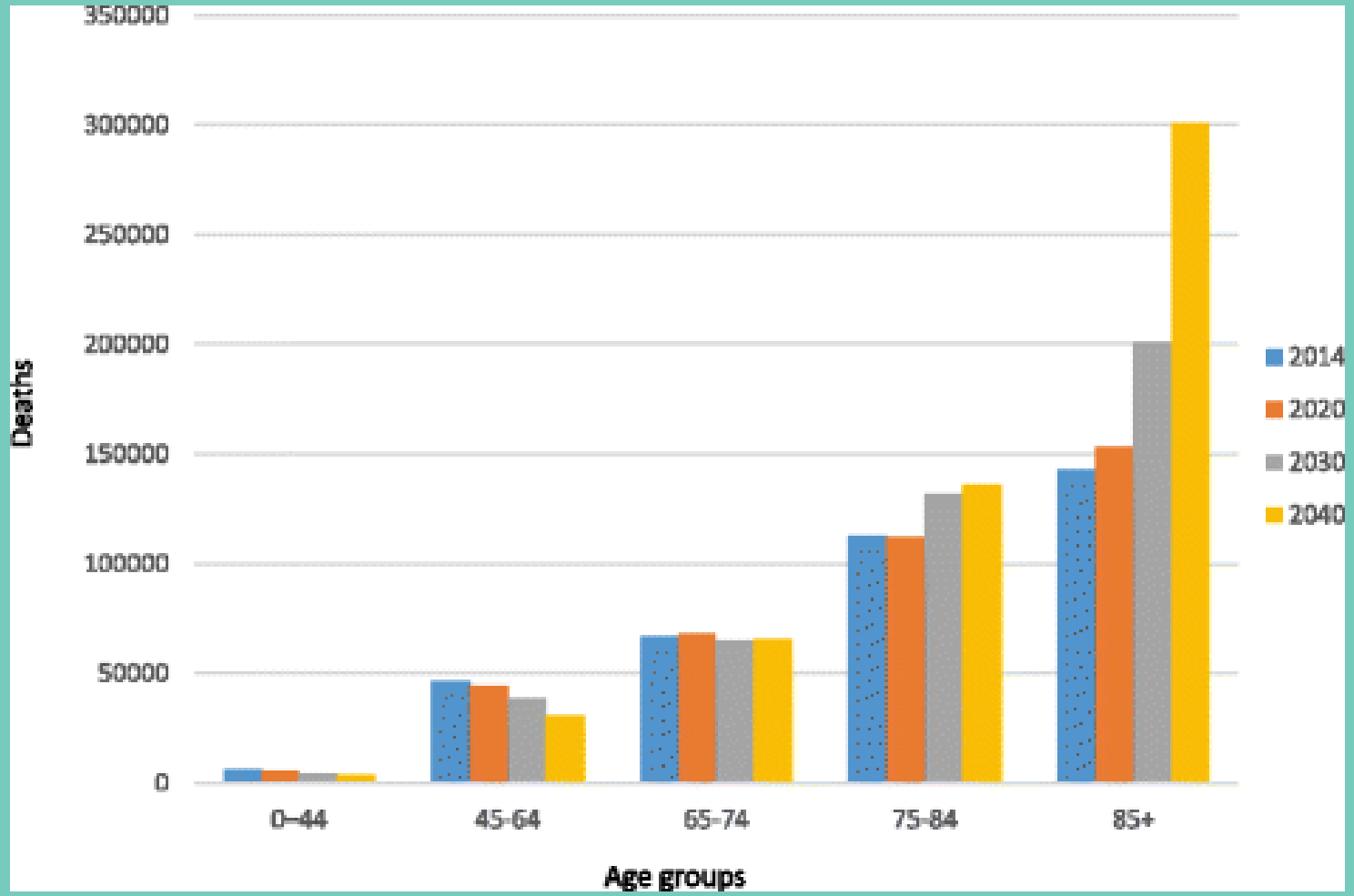
Recognition of the end of life

Why is recognition so important?

- By 2040, annual deaths in England and Wales are projected to rise by 25.4%
- The number of people requiring palliative care will grow by 25.0%.
- If the upward trend observed from 2006 to 2014 continues, the increase will be of 42.4%
- Disease-specific projections show that dementia and cancer will be the main drivers of increased need.
- It is estimated that 1% of a GP list size are in need of Palliative care, however evidence shows that only around 27% of these are even identified as palliative.

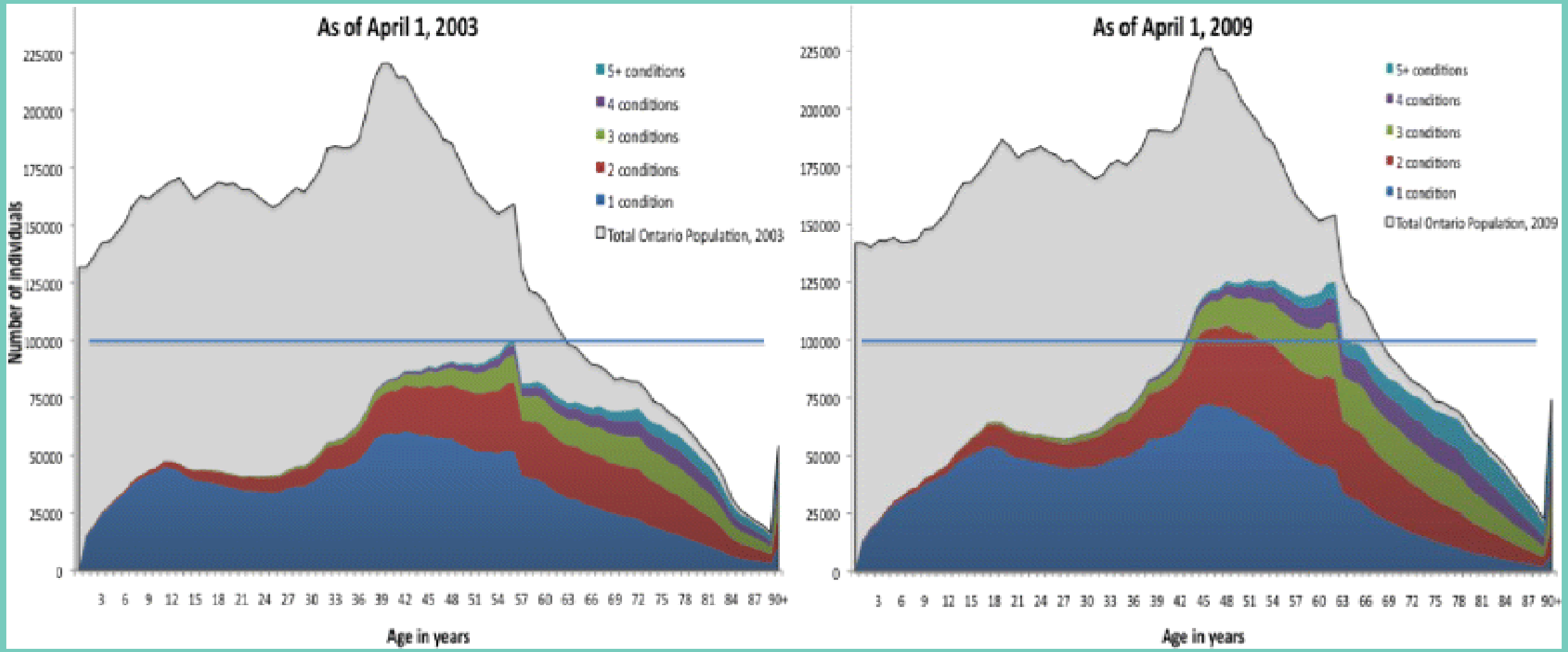
- Would you be surprised if this individual passed away in the next 12 months ?

Palliative Care 2040



How many people will need palliative care in 2040? Past trends, future projections and implications for services
S. N. Etkind BMC Medicine2017**15**:102

Co-morbidity – increasing complexity

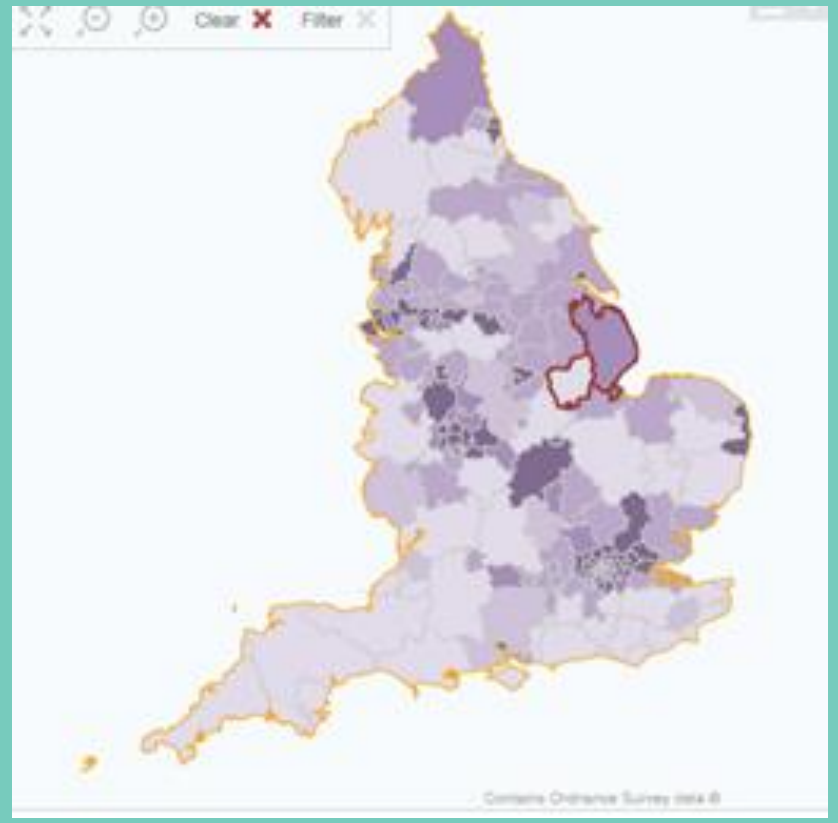


The increasing burden and complexity of multimorbidity , Perfoyo et al BMC Public Health2015**15**:415

Variation in the proportion of people who have 3 or more emergency hospital admissions during the last 90 days of life by CCG

Public Health England Atlas of variation for palliative and end of life care Dec 2018

Variation in the proportion of all people who died in hospital by CCG



Public Health England Atlas of variation for palliative and end of life care Dec 2018

Variation in the number of patients in need of palliative care/support, as recorded on GP disease registers per 100 deaths by CCG

Public Health England Atlas of variation for palliative and end of life care Dec 2018

Palliative and End of Life Strategic Delivery Plan for Lincolnshire
2017 - 2022

Working together to identify all patients deteriorating from a life limiting condition in Lincolnshire, and to provide the highest quality care, communication and support.

Why is recognition so important?

- NICE - End of life care for adults Quality standard Published: 28 November 2011
- NICE - End of life care for adults: service delivery Published: 16 October 2019
- NICE - Care of dying adults in the last days of life Quality standard Published: 2 March 2017
- ‘Every Moment Counts’ A narrative for person centred co-ordinated care for people near the end of life. Produced by National Voices and the National Council for Palliative Care, in partnership with NHS England. Published March 2015.
- Ambitions for Palliative and End of Life Care: A national framework for local action 2015-2020. Produced by the National Palliative and End of Life Care Partnership in 2015.
- ‘One Chance to Get it Right: improving people’s experience of care in the last few days and hours of life’ Leadership Alliance for the Care of Dying People. June 2014.
- Access to Palliative Care Bill [HL] 2017-19 in the House of Lords to make provision for clinical commissioning groups to ensure that persons in their area have access to specialist and generalist palliative care and appropriate support services.

Recognition is a challenge and not easy

Common presentations

- Falls
- Sepsis
- Exacerbations COPD
- Urinary tract infection
- Dehydration
- Acute confusion
- Chest pain suspected MI

Summary Hospital-level Mortality Indicator (SHMI), England, July 2017 - June 2018

Diagnosis group breakdown

The SHMI is made up of 140 different diagnosis groups. Provider spells are assigned to diagnosis groups based on the primary diagnosis (the main condition the patient is in hospital for) of the first episode in the provider spell. If the primary diagnosis for the first episode in the spell is a symptom or sign then the primary diagnosis from the second episode in the spell is used, unless this is also a symptom or sign in which case the primary diagnosis from the first episode is used. The cause of death may be unrelated to the condition the patient is in hospital for. Further details of the conditions which are included in each diagnosis group are available to download from the SHMI homepage. Some values are not shown because they have been suppressed for the purposes of disclosure control.

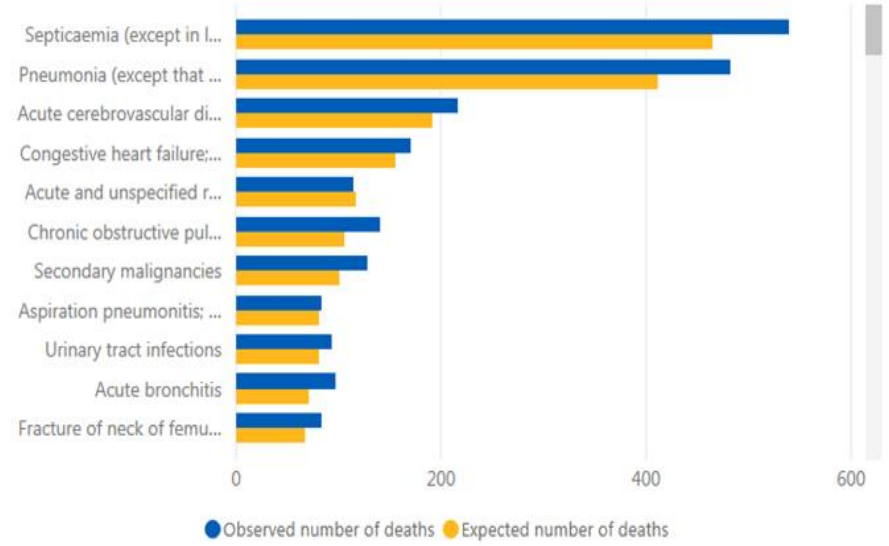
Select or search for a trust to display their data

- The Royal Wolverhampton NHS Trust
- Torbay and South Devon NHS Foundation Trust
- United Lincolnshire Hospitals NHS Trust
- University College London Hospitals NHS Foundation Trust

Select or search for one or more diagnosis groups

- Abdominal hernia
- Abdominal pain
- Acute and unspecified renal failure
- Acute bronchitis

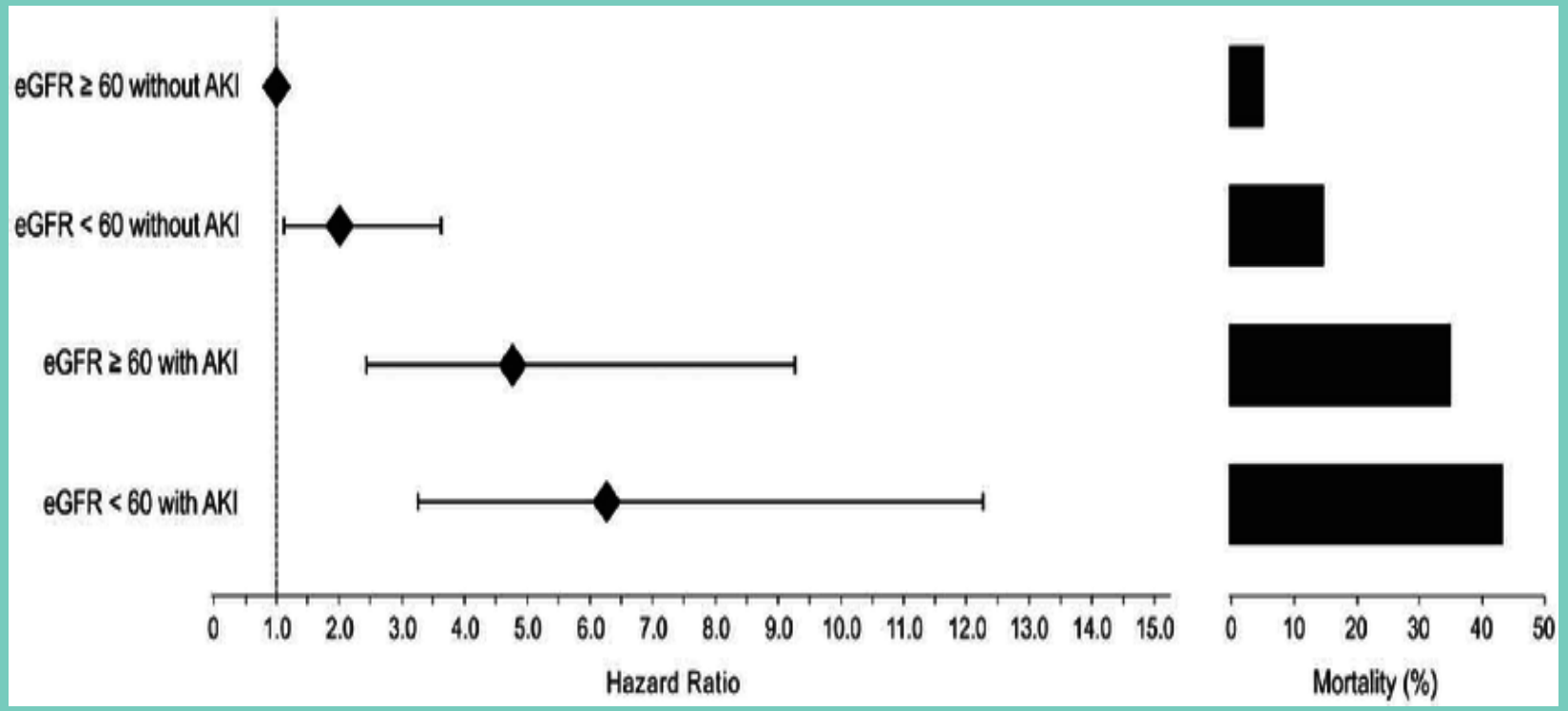
Comparison of observed and expected deaths by diagnosis group



Diagnosis group description	Diagnosis group number	Provider spells	Observed number of deaths	Expected number of deaths
Septicaemia (except in labour), Shock	2	2,111	540	464.3317
Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	73	2,453	482	411.1660
Acute cerebrovascular disease	66	1,181	217	191.9089
Congestive heart failure; nonhypertensive	65	1,052	171	155.8052
Acute and unspecified renal failure	99	782	114	117.2909
Chronic obstructive pulmonary disease and bronchiectasis	75	1,699	140	106.3788
Secondary malignancies	30	489	128	100.7318
Aspiration pneumonitis; food/vomitus	77	204	83	81.1462
Urinary tract infections	101	1,750	94	80.4358
Acute bronchitis	74	1,767	97	71.4488
Fracture of neck of femur (hip)	120	867	84	67.3933
Cancer of bronchus; lung	15	230	59	64.9230

Myocardial Infarction

- The 30-day mortality rates after admission to hospital for AMI have decreased over time. Between 2008 and 2017, the 30-day AMI mortality rate in the UK decreased from 11.9 % to 8.6 %



Renal Function at Hospital Admission and Mortality Due to Acute Kidney Injury after Myocardial Infarction – Bruetto in PLoS ONE 7(4):e35496 · April 2012

COPD

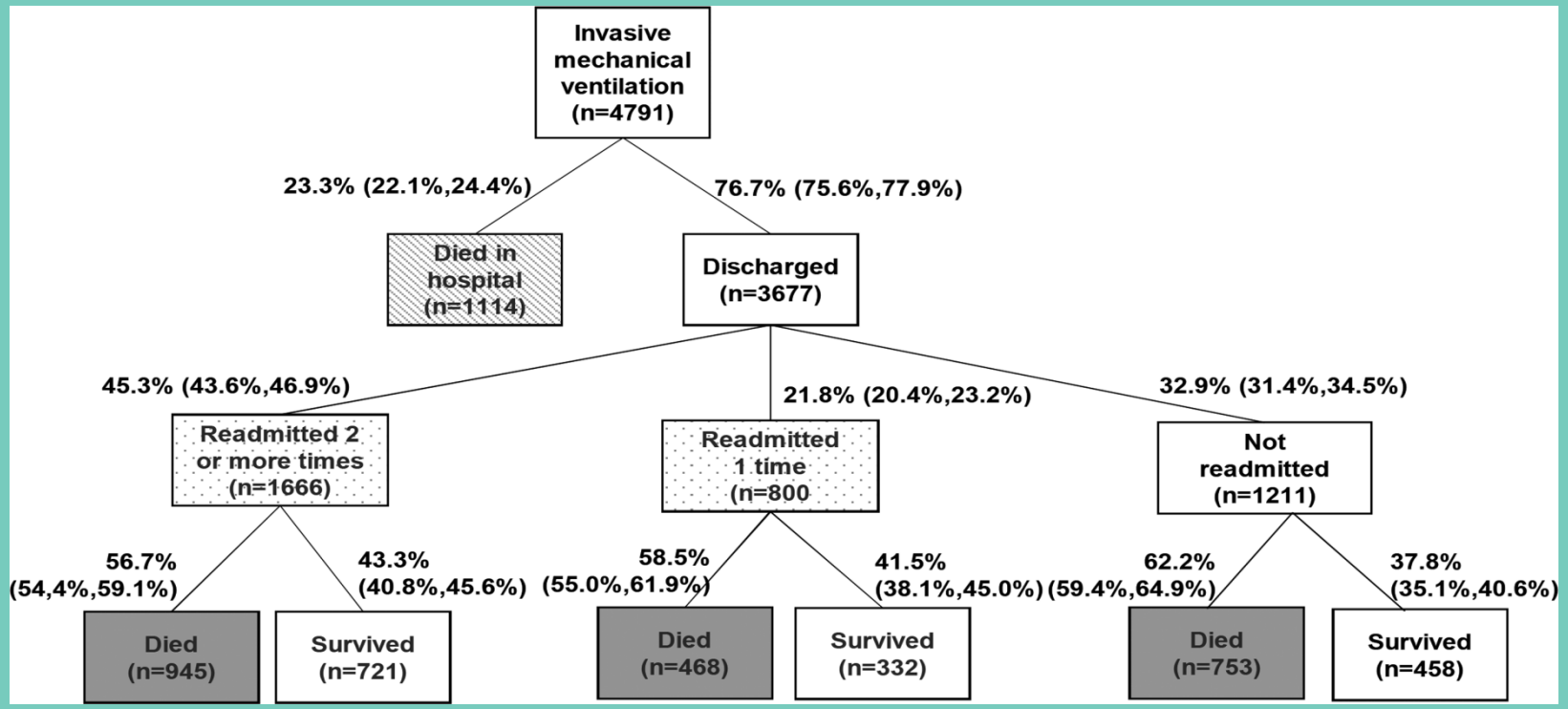
National COPD Audit Programme

- Death during or within 30 days of a COPD admission is common
- Median 30-day mortality was 11.3% (IQR 9.9–12.6) in 2006–2007 and 11.4% (IQR 9.7–12.9) in 2007–2008
- There were 125 113 emergency COPD admissions in 2006–2007 and 123 883 in 2007–2008. There were 27 796 deaths during 2006–2008
- Patients receiving Non invasive ventilation 30 day mortality is in the region of 20 % if intubated above 50 %
- Higher mortality associated with increasing age, dementia , renal impairment, prolonged stay

https://thorax.bmj.com/content/68/10/968

Outcomes over 12 months for patients with COPD given invasive ventilation

Patients hospitalised for respiratory failure due to COPD - 2-year median survival,



Hajizadeh N, et al. Thorax 2015;70:294–296. doi:10.1136/thoraxjnl-2014-205248

Stroke

- Around 85% of strokes in the UK are ischaemic, while the remaining 15% are haemorrhagic.
- In the UK, 30-day mortality after admission to hospital for ischaemic stroke decreased from 18.3 % in 2008 to 11.6 % in 2013, but the rate has since stayed roughly constant.
- For haemorrhagic stroke mortality remains at around 30% for hospital admissions

https://www.nuffieldtrust.org.uk/resource/stroke-and-heart-attack-mortality

Pneumonia

- NICE - CAP between 5.7 and 14% mortality
- Bacteraemia CAP was associated with high inpatient mortality
- 7-day mortality was 24.4 %
- 30 days mortality was 30.6 %
- HAP – Thorax 2016 - 47% died on admission with further 70% at 1 year

NICE – 30-70%

Infection, October 2013, Volume 41, Issue 5, pp 1005–1011
Thorax dec 2016 Vol 71 suppl 3 Predicting mortality in hospital acquired pneumonia

Survival of people with dementia after unplanned acute hospital admission: a prospective cohort study

- 616 people (70 years and older) with unplanned medical admission
- A total 42.4% of the cohort had dementia.
- Nearly half (48.3%) had died 12 months after admission
- Median survival time 1.1 years compared with 2.7 years in people without dementia.

Leurent 2013 International journal of geriatric psychiatry, 28 (10). pp. 1015-22. ISSN 0885-6230

Being prepared

- IDENTIFICATION – who is at risk?
- COMMUNICATION – across organisations
- CARE PLAN IN EVENT OF EMERGENCY – INCLUDING RESPECT
- INFORMATION AND SUPPORT

How do we identify palliative patients ?

Supportive and **P**alliative **I**ndicator **C**are **T**ool

SPICT™ is a tool used by health and care professionals to help them identify people at risk of deteriorating and dying with one or more advanced, progressive conditions or a new life-limiting illness.

SPICT

- The SPICT tool was developed by Edinburgh University and is researched based. For health professionals.

- SPICT-4ALL tool is a translation into simple (non-medical) language. Enables family and carers to communicate their concerns to health professionals and be heard.

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Supportive and Palliative Care Indicators Tool (SPICT™)

The SPICT™ is used to help identify people whose health is deteriorating. Assess them for unmet supportive and palliative care needs. Plan care.

Look for any general indicators of poor or deteriorating health.

- Unplanned hospital admission(s).
- Performance status is poor or deteriorating, with limited reversibility. (eg. The person stays in bed or in a chair for more than half the day.)
- Depends on others for care due to increasing physical and/or mental health problems.
- The person's carer needs more help and support.
- The person has had significant weight loss over the last few months, or remains underweight.
- Persistent symptoms despite optimal treatment of underlying condition(s).
- The person (or family) asks for palliative care; chooses to reduce, stop or not have treatment; or wishes to focus on quality of life.

Look for clinical indicators of one or multiple life-limiting conditions.

Cancer

Functional ability deteriorating due to progressive cancer.

Too frail for cancer treatment or treatment is for symptom control.

Dementia/ frailty

Unable to dress, walk or eat without help.

Eating and drinking less; difficulty with swallowing.

Urinary and faecal incontinence.

Not able to communicate by speaking; little social interaction.

Frequent falls; fractured femur.

Recurrent febrile episodes or infections; aspiration pneumonia.

Neurological disease

Progressive deterioration in physical and/or cognitive function despite optimal therapy.

Speech problems with increasing difficulty communicating and/or progressive difficulty with swallowing.

Recurrent aspiration pneumonia; breathless or respiratory failure.

Persistent paralysis after stroke with significant loss of function and ongoing disability.

Heart/ vascular disease

Heart failure or extensive, untreatable coronary artery disease; with breathlessness or chest pain at rest or on minimal effort.

Severe, inoperable peripheral vascular disease.

Respiratory disease

Severe, chronic lung disease; with breathlessness at rest or on minimal effort between exacerbations.

Persistent hypoxia needing long term oxygen therapy.

Has needed ventilation for respiratory failure or ventilation is contraindicated.

Kidney disease

Stage 4 or 5 chronic kidney disease (eGFR < 30ml/min) with deteriorating health.

Kidney failure complicating other life limiting conditions or treatments.

Stopping or not starting dialysis.

Liver disease

Cirrhosis with one or more complications in the past year:

- diuretic resistant ascites
- hepatic encephalopathy
- hepatorenal syndrome
- bacterial peritonitis
- recurrent variceal bleeds

Liver transplant is not possible.

Other conditions

Deteriorating and at risk of dying with other conditions or complications that are not reversible; any treatment available will have a poor outcome.

Review current care and care planning.

- Review current treatment and medication to ensure the person receives optimal care; minimise polypharmacy.
- Consider referral for specialist assessment if symptoms or problems are complex and difficult to manage.
- Agree a current and future care plan with the person and their family. Support family carers.
- Plan ahead early if loss of decision-making capacity is likely.
- Record, communicate and coordinate the care plan.

Please register on the SPICT website (www.spict.org.uk) for information and updates

SPICT™, April 2017

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Supportive and Palliative Care Indicators Tool (SPICT-4ALL™)

The SPICT™ helps us to look for people who are less well with one or more health problems. These people need more help and care now, and a plan for care in the future. Ask these questions:

Does this person have signs of poor or worsening health?

- Unplanned (emergency) admission(s) to hospital.
- General health is poor or getting worse; the person never quite recovers from being more unwell. (This can mean the person is less able to manage and often stays in bed or in a chair for more than half the day)
- Needs help from others for care due to increasing physical and/ or mental health problems.
- The person's carer needs more help and support.
- Has lost a noticeable amount of weight over the last few months; or stays underweight.
- Has troublesome symptoms most of the time despite good treatment of their health problems.
- The person (or family) asks for palliative care; chooses to reduce, stop or not have treatment; or wishes to focus on quality of life.

Does this person have any of these health problems?

Cancer

Less able to manage usual activities and getting worse.

Not well enough for cancer treatment or treatment is to help with symptoms.

Dementia/ frailty

Unable to dress, walk or eat without help.

Eating and drinking less; difficulty with swallowing.

Has lost control of bladder and bowel.

Not able to communicate by speaking; not responding much to other people.

Frequent falls; fractured hip.

Frequent infections; pneumonia.

Nervous system problems

(eg Parkinson's, MS, stroke, motor neurone disease)

Physical and mental health are getting worse.

More problems with speaking and communicating; swallowing is getting worse.

Chest infections or pneumonia; breathing problems.

Severe stroke with loss of movement and ongoing disability.

Heart or circulation problems

Heart failure or has bad attacks of chest pain. Short of breath when resting, moving or walking a few steps.

Very poor circulation in the legs; surgery is not possible.

Lung problems

Unwell with long term lung problems. Short of breath when resting, moving or walking a few steps even when the chest is at its best.

Needs to use oxygen for most of the day and night.

Has needed treatment with a breathing machine in the hospital.

Kidney problems

Kidneys are failing and general health is getting poorer.

Stopping kidney dialysis or choosing supportive care instead of starting dialysis.

Liver problems

Worsening liver problems in the past year with complications like:

- fluid building up in the belly
- being confused at times
- kidneys not working well
- infections
- bleeding from the gullet

A liver transplant is not possible.

Other conditions

People who are less well and may die from other health problems or complications. There is no treatment available or it will not work well.

What we can do to help this person and their family.

- Start talking with the person and their family about why making plans for care is important.
- Ask for help and advice from a nurse, doctor or other professional who can assess the person and their family and help plan care.
- We can look at the person's medicines and other treatments to make sure we are giving them the best care or get advice from a specialist if problems are complicated or hard to manage.
- We need to plan early if the person might not be able to decide things in the future.
- We make a record of the care plan and share it with people who need to see it.

Please register on the SPICT website (www.spict.org.uk) for information and updates.

SPICT-4ALL™, June 2017

Recognising a patient is nearing the end of life enables holistic assessment and access to palliative care

Being prepared

A man who does not think and plan long ahead will find trouble right at his door.

~ Confucius


Pregnant
Not Pregnant


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Today's Parent

MY BIRTH PLAN

This guide will help you create a document detailing informed decisions you've made for your ideal birth experience. Here's your chance to think through your options for things like pain relief and the environment you'd like to deliver in, as well as to share those thoughts with your doctor or midwife, and your labour and delivery team. Keep in mind that your birth plan is a guideline; labour is unpredictable and the health of you and your baby will take precedence over your wish list.

Full name: _____ Doctor's name: _____

Due date: _____ Hospital name: _____

IMPORTANT THINGS TO KNOW ABOUT ME:
(Allergies, cultural or religious preferences, etc.)

I WOULD LIKE TO USE THESE LABOUR AIDS:
(Birthing ball; movement; water; birthing chair; etc.)

I WOULD LIKE THESE PEOPLE AND ITEMS WITH ME DURING LABOUR AND DELIVERY:
(Support person; music; photographs to use as focal points; or other items.)

I WOULD LIKE TO TRY THESE PUSHING POSITIONS:
(Squatting with support; side-lying; on hands and knees; etc.)

DURING LABOUR, I WOULD LIKE TO:
(Stay hydrated with ice chips or by IV; wear own clothing; remain mobile throughout labour.)

IN THE CASE OF A CAESAREAN SECTION:
(Any special requests.)

MY THOUGHTS ON LABOUR INDUCTION ARE:
(Open to medication to advance labour or preference for natural methods, unless augmentation is deemed medically necessary.)

SPECIAL INSTRUCTIONS FOR DELIVERY AND BIRTH:
(Who will cut the cord; if you are banking baby's cord blood; if you'd like baby handed to you immediately, assuming all is well.)

MY PREFERRED METHODS OF PAIN RELIEF:
(Massage; labour imagery; relaxation/breathing techniques; tub, shower or Jacuzzi; preference for type and timing of medication, if any.)

AFTER MY BABY'S BIRTH, I WOULD LIKE:
(Breastfeeding plans; your thoughts on formula; rooming in and other care preferences for you and your baby.)

My name is...

I live at...

I was born on...

My one page profile is overleaf. Please read it first!

Yes

No

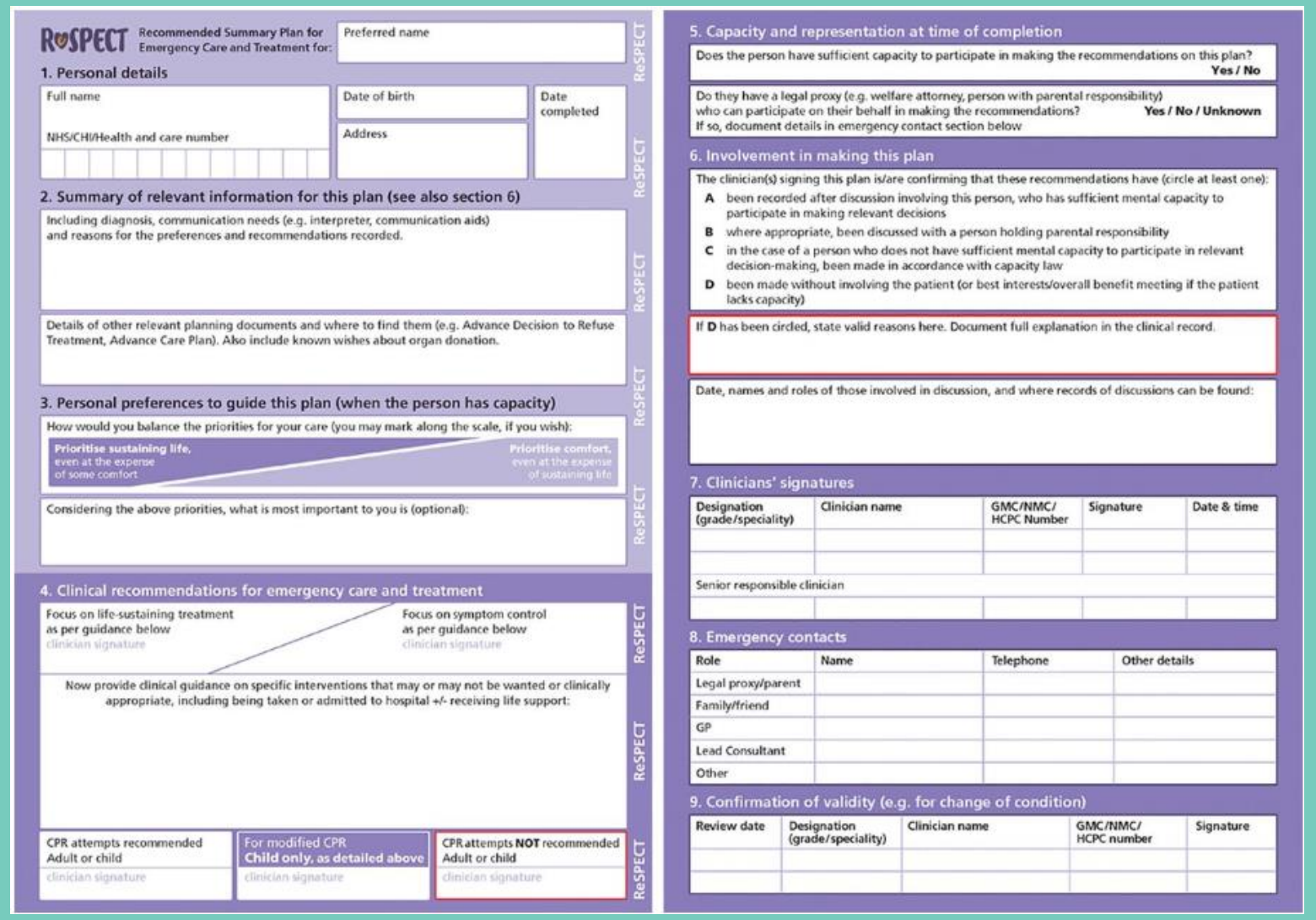
I'm allergic to...

Other?

I have a bag packed to take with me. It is located...

NEIGHBOURHOOD WORKING LINCOLNSHIRE

ReSPECT



ReSPECT Recommended Summary Plan for Emergency Care and Treatment for: Preferred name

1. Personal details

Full name

NHS/CHI/Health and care number

Date of birth

Address

Date completed

2. Summary of relevant information for this plan (see also section 6)

Including diagnosis, communication needs (e.g. interpreter, communication aids) and reasons for the preferences and recommendations recorded.

Details of other relevant planning documents and where to find them (e.g. Advance Decision to Refuse Treatment, Advance Care Plan). Also include known wishes about organ donation.

3. Personal preferences to guide this plan (when the person has capacity)

How would you balance the priorities for your care (you may mark along the scale, if you wish):

Prioritise sustaining life, even at the expense of some comfort

Prioritise comfort, even at the expense of sustaining life

Considering the above priorities, what is most important to you is (optional):

4. Clinical recommendations for emergency care and treatment

Focus on life-sustaining treatment as per guidance below
clinician signature

Focus on symptom control as per guidance below
clinician signature

Now provide clinical guidance on specific interventions that may or may not be wanted or clinically appropriate, including being taken or admitted to hospital +/- receiving life support:

CPR attempts recommended Adult or child	For modified CPR **Child only, as detailed above**	CPR attempts **NOT** recommended Adult or child
clinician signature	clinician signature	clinician signature

5. Capacity and representation at time of completion

Does the person have sufficient capacity to participate in making the recommendations on this plan? **Yes / No**

Do they have a legal proxy (e.g. welfare attorney, person with parental responsibility) who can participate on their behalf in making the recommendations? **Yes / No / Unknown**
If so, document details in emergency contact section below

6. Involvement in making this plan

The clinician(s) signing this plan is/are confirming that these recommendations have (circle at least one):

- **A** been recorded after discussion involving this person, who has sufficient mental capacity to participate in making relevant decisions
- **B** where appropriate, been discussed with a person holding parental responsibility
- **C** in the case of a person who does not have sufficient mental capacity to participate in relevant decision-making, been made in accordance with capacity law
- **D** been made without involving the patient (or best interests/overall benefit meeting if the patient lacks capacity)

If **D** has been circled, state valid reasons here. Document full explanation in the clinical record.

Date, names and roles of those involved in discussion, and where records of discussions can be found:

7. Clinicians' signatures

Designation (grade/speciality)	Clinician name	GMC/NMC/ HCPC Number	Signature	Date & time
Senior responsible clinician				

8. Emergency contacts

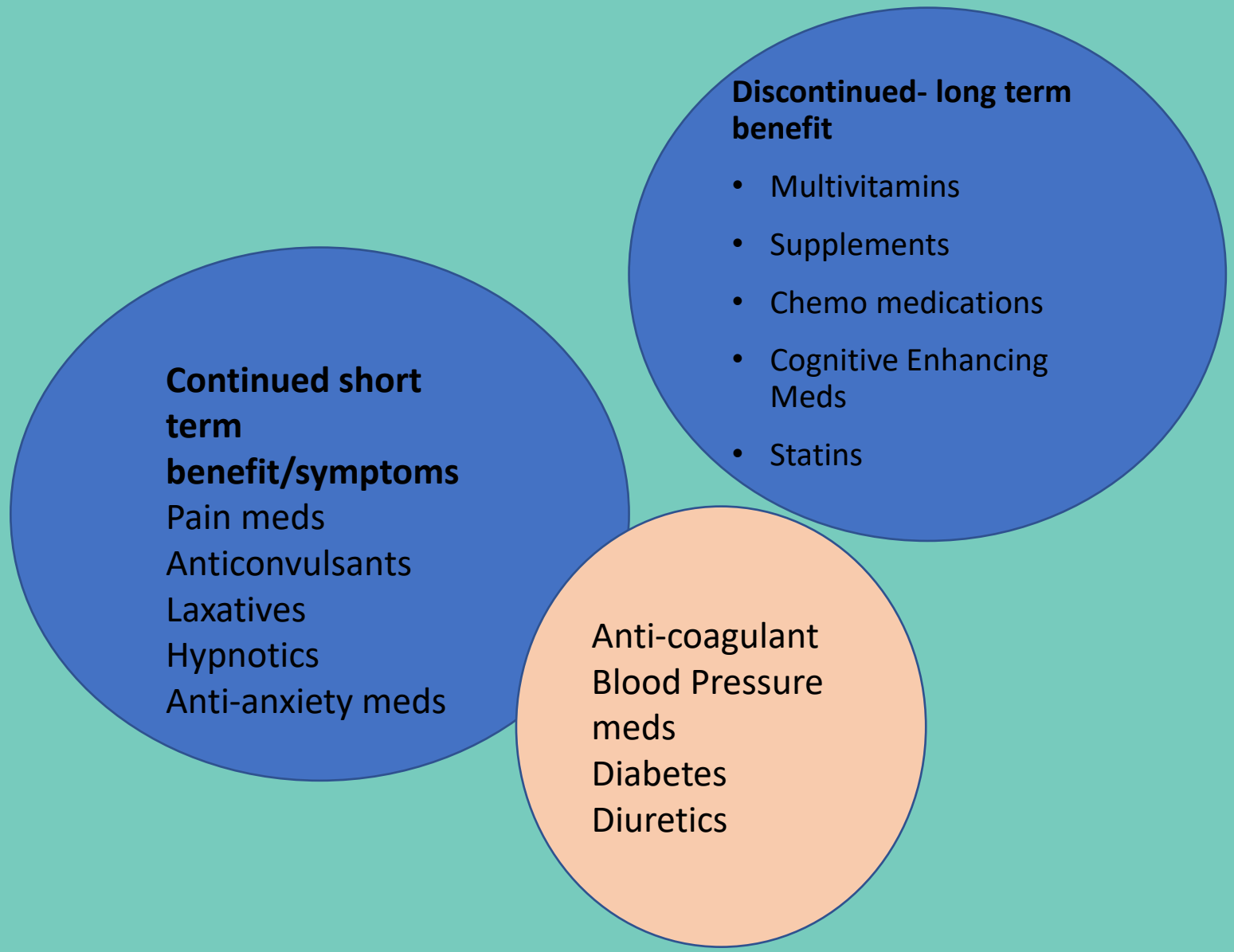
Role	Name	Telephone	Other details
Legal proxy/parent			
Family/friend			
GP			
Lead Consultant			
Other			

9. Confirmation of validity (e.g. for change of condition)

Review date	Designation (grade/speciality)	Clinician name	GMC/NMC/ HCPC number	Signature

Medication decisions

- Relieve current symptoms of disease
- Provide comfort to the patient
- Life prolonging in line with patient goals and expectations
- Individualised plan tailored to patient focus of care and priorities
- Evidence of symptomatic benefit or event reduction/ secondary prevention?


Discontinued- long term benefit
Multivitamins
Supplements
Chemo medications
Cognitive Enhancing Meds
Statins
Continued short term benefit/symptoms
Pain meds
Anticonvulsants
Laxatives
Hypnotics
Anti-anxiety meds
Anti-coagulant
Blood Pressure meds
Diabetes
Diuretics

Anticonvulsants

Seizure control – important to the person and carer

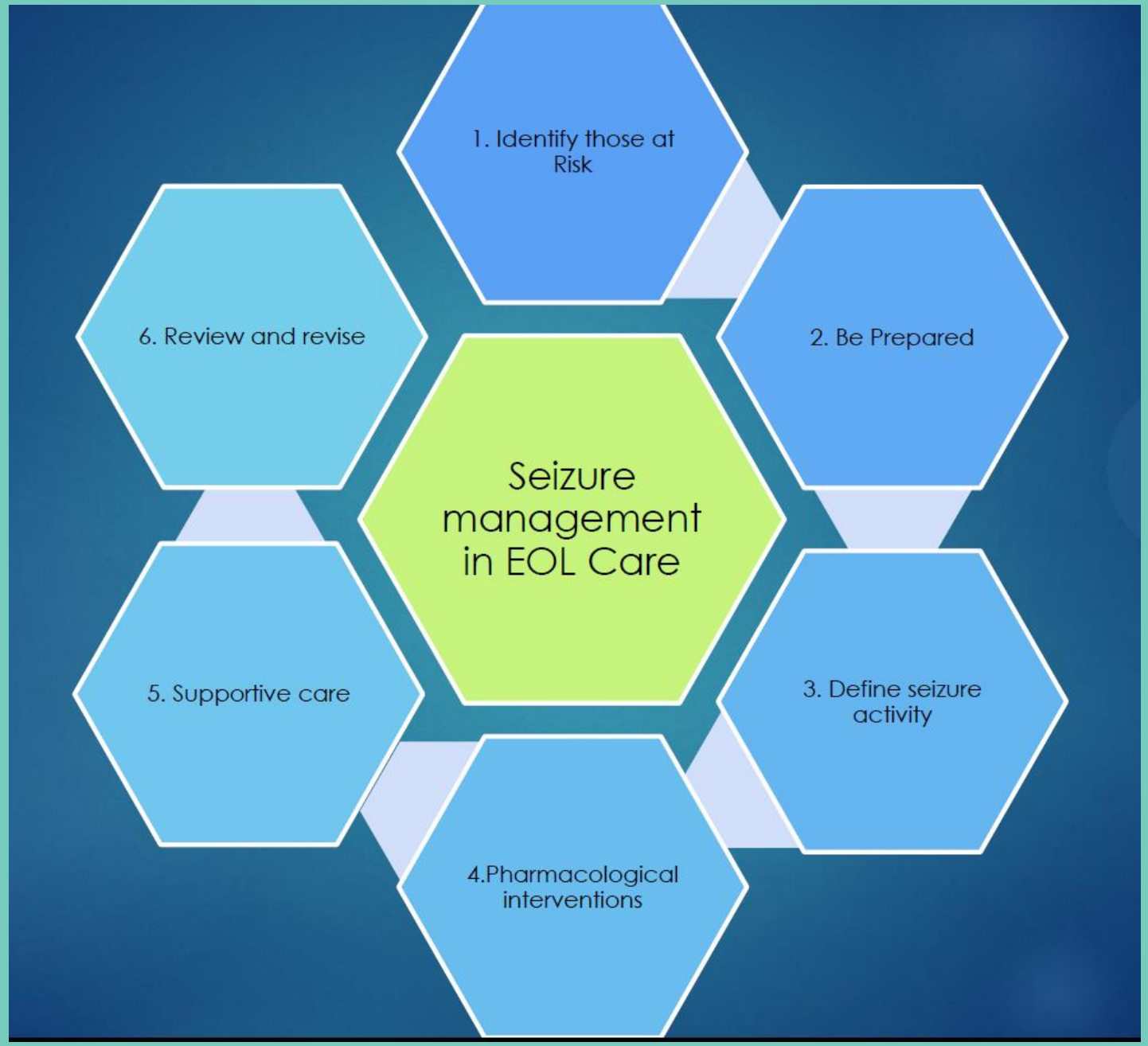
- Recognise seizures to aid good care / treatment
- Good symptom control limit affect on daily life preserve function.
- Maintain quality of life – implications for driving, care of children, travel, work.
- Advance care plan – hospital admissions, preferred place of death
- Support to family / carers – palliative care emergency- frightening experience for relatives

Background

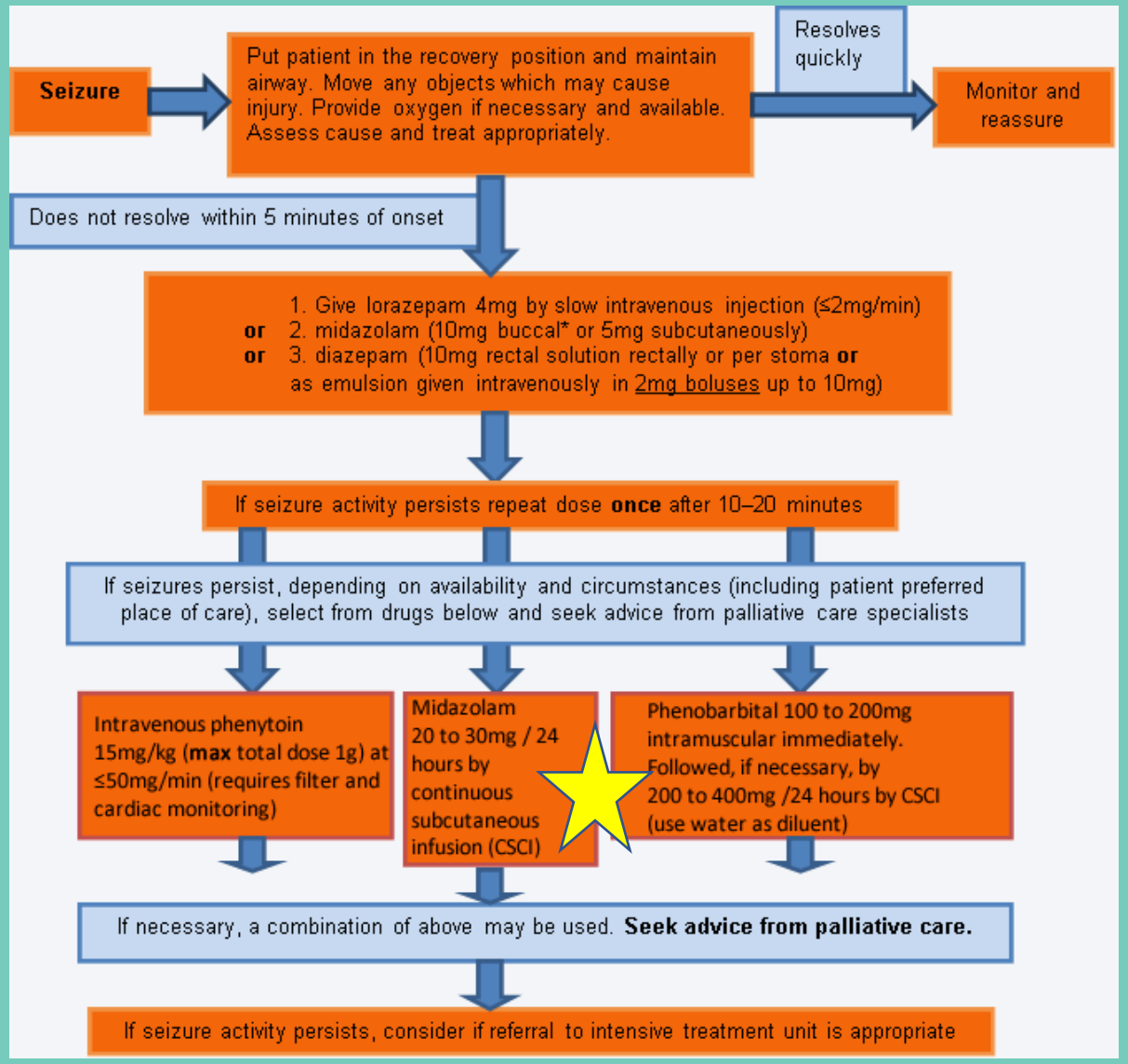
- Seizures (generalised or partial) occur in 10 to 15% of palliative care patients
- Not the image of a peaceful death
- Of patients with primary brain tumours, 20% to 45% will present at diagnosis with convulsions
- Slow-growing primary brain cancers tend to present more often with seizures with a prevalence of 70% to 100%,
- More aggressive glioblastoma, with a prevalence of 10% to 20%

Challenges in Seizure management in End of Life Care

- Seizures may become more frequent, longer, and less responsive to treatment as underlying disease progresses
- Many drugs are oral medications
- How to combine best practice in seizure management, with best practice in palliative care and respect patient choice
- Acceptable level of medical intervention A and E or home
- Preferred place of care and place of death


1. Identify those at Risk
2. Be Prepared
3. Define seizure activity
4.Pharmacological interventions
5. Supportive care
6. Review and revise
Seizure management in EOL Care

Acute Management – home or A and E



Status Epilepticus

- Mortality 11-34%
- Spontaneous resolution of seizure decreases with increasing length of time
- Although IV **lorazepam** is acute care management for the control of status epilepticus, IM **midazolam** is as effective.
- Midazolam via CSCI example 20-30mg in 24 hours
- **Phenobarbital specialist advice**
- REMEMBER NON CONVULSIVE MAY PRESENT AS DELERIUM

Practice Points

- **Midazolam injection can be given buccally in an emergency**
- There is **no evidence** of benefit of prophylactic antiepileptics if person has never had a seizure unless peri-operatively
- Monitor effect of medication which can lower seizure threshold, such as haloperidol or levomepromazine
- **Levetiracetam or Sodium Valproate if previously taking can both be delivered via CSCI syringe driver**

Anticipatory prescribing

Preparation	Dose	Format
Buccolam® Licensed formulation in paediatrics	Midazolam Hydrochloride **5mg in 1ml**	Pre-filled oral syringes of 2·5mg. 5mg, 7·5mg and 10mg
Epistatus® Licensed formulation in paediatrics Unlicensed formulation	Midazolam Maleate **10mg in 1ml**	10mg/ml prefilled syringe 5ml bottle (4 x 1ml doses with 1ml overage) + 4 x 1ml oral syringes. Also available as pre-filled oral syringes of 2·5mg, 5mg, 7·5mg.

Cant take oral anticonvulsants

- **Subcutaneous levetiracetam or sodium valproate** via CSCI over 24 hours is an option to be considered if not in imminent dying phase.
- Conversion of oral to CSCI of levetiracetam is 1:1. Reserve for patients with prognosis where swallow affected but otherwise condition remains stable.
- Also where interaction is important and preservation of function where Midazolam may inhibit function or alertness.

- **Dying patients unable to take oral medication:**
  - Midazolam 20mg to 30mg via continuous subcutaneous infusion (CSCI) over 24 hours can be used as maintenance therapy.
  - Midazolam 5mg subcutaneously (SC). Buccal midazolam is another option and can be acceptable for patients.

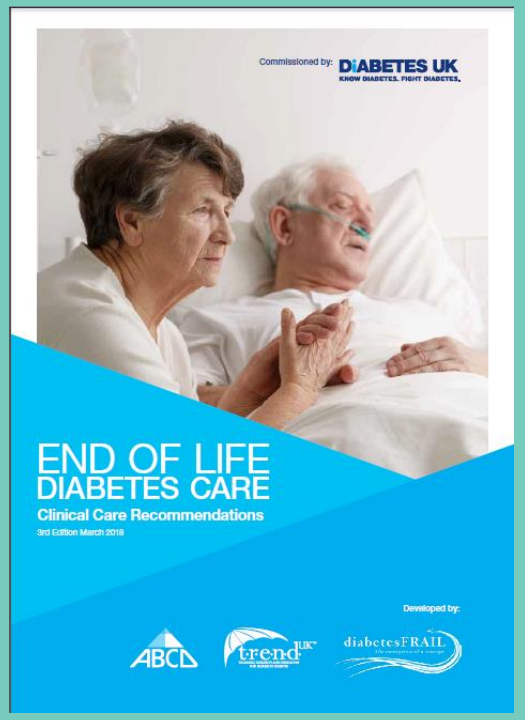
What do we do with steroids at End of Life?. Increase? Decrease? Stop? Give SC?

- Why were steroids being given?
- Risks of continuing – agitation, stimulation, hyperglycaemia, GI upset, injection
- Benefits of continuing – uncontrolled pain, poorly controlled seizures brain oedema,, preservation of function?
- Are they able to experience symptoms of Addison's crisis with abrupt withdrawal?
- When patients with a brain cancer are deteriorating despite increases in steroid there comes a point where they no longer are increasing function, reducing symptoms and this is the time to reduce to stop
- **In a comatose imminently dying patient would stop as unlikely to benefit**.

Diabetes medications

Diabetes and EOLC

- 10-30% of European people of pensionable age and 25% of care home residents in the UK are known to have diabetes.
- Early identification of those entering an end of life scenario



Guideline Contents 3rd edition March 2018

- Introduction
- Medication – insulin and non-insulin
- Vulnerable special populations
- Nutrition
- Advance Care Planning
- Steroid therapy
- Hypoglycaemia
- Sick day management
- Withdrawal of treatment
- Competencies/workforce training
- Appendices

Guidelines

- Definition of end of life care - when they are likely to die within the next 12 months.
- Early identification

 - advanced progressive

 - frailty

 - existing condition at risk of acute event

- life threatening acute condition

Diabetes at EOL

- The care of the dying person with diabetes is challenging, encompassing changes to:
- Glycaemic targets
- Individual and carer expectation
- Reducing risk of hyperglycaemia and hypoglycaemia
- Managing the effects of other medications such as glucocorticosteroids
- Tailoring of diabetes medications
- Advance care planning decisions – PPC / PPD

Management separates 4 Stages

We have adopted **four stages (A - D from the Gold Standards Framework)** within the end of life scenario for considering the use of glucose-lowering therapies and other relevant drug therapies: these are colour coded in line with other nationally recognised stages of end of life care:

- A - Blue “All” from diagnosis stable with year plus prognosis
- B - Green “Benefits” DS1500 Unstable / Advanced Disease Months prognosis
- C - Yellow “Continuing Care” Deteriorating Weeks prognosis
- D - Red “Days” Final days / Terminal Care Days prognosis

Key Clinical Areas

- Expert consensus on glucose control target ranges for those taking glucose lowering therapies/insulin:

  - Aim 1 – no glucose level less than 6 mmol/l
  - Aim 2 – no glucose level higher than 15 mmol/l

- In general glucose lowering therapies can be reduced/stopped as people with type 2 diabetes become less well.
- Medication review of risk reduction medications e.g statins, ACE inhibitors

A - Blue “All” from diagnosis stable with year plus prognosis

The use of cardio-protective therapies (e.g. ACE inhibitors, angiotensin-receptor blockers, aspirin, statins) should be reviewed in the light of the diagnosis and the presence of other medical co-morbidities, and dosage reductions (even withdrawal) of some of the therapies considered.

Individuals may experience more gastrointestinal effects from aspirin with poor dietary intake or concurrent steroid use. Individuals on aspirin and steroids should be considered for gastro-intestinal protection with a proton-pump inhibitor or suitable alternative.

Oral hypoglycaemic agents (OHAs) and or insulin should be reviewed and the targets for glucose control agreed. Weight loss may mean a reduced need for OHAs and/ or insulin or offer potential for simplification of the glucose control regimen.

B - Green “Benefits” Unstable / Advanced Disease Months prognosis

At this stage the aim is to keep drug interventions to a minimum that will control symptoms. All of the above comments apply but complex regimens should be reviewed especially where individuals are on combinations of oral hypoglycaemic agents with insulin. It is generally simpler for individuals to switch from combinations to insulin alone, once or twice daily insulin.

- Insulin alone is a simpler option than combinations of tablets and insulin

Insulin regimens should be simplified if possible. The likelihood of carers being involved in insulin therapy increases at this stage and may inform the choice of insulin regime.

If moving from twice daily to once daily insulin, the starting dose of long acting insulin such as Glargine or Insulin Degludec should be less than the total dose of twice daily isophane or pre-mixed insulin and 75% of total previous dose is recommended

- Once daily insulin is a simpler option if carers are involved and/or appetite is changing

C - Yellow “Continuing Care” Deteriorating Weeks prognosis

Individuals may present or be referred to the diabetes team at this time, in which case all of the suggested changes above should be considered but keeping in mind that there may be little time to get used to a new insulin regimen. Intensive support can be needed for dose adjustments as well-being, activity and appetite can change day to day.

Managing diabetes can be an added stress at an emotional time for individuals and carers. Relaxing targets for control may seem like ‘giving up” for some while others may view managing diabetes in addition to their terminal illness as “pointless”.

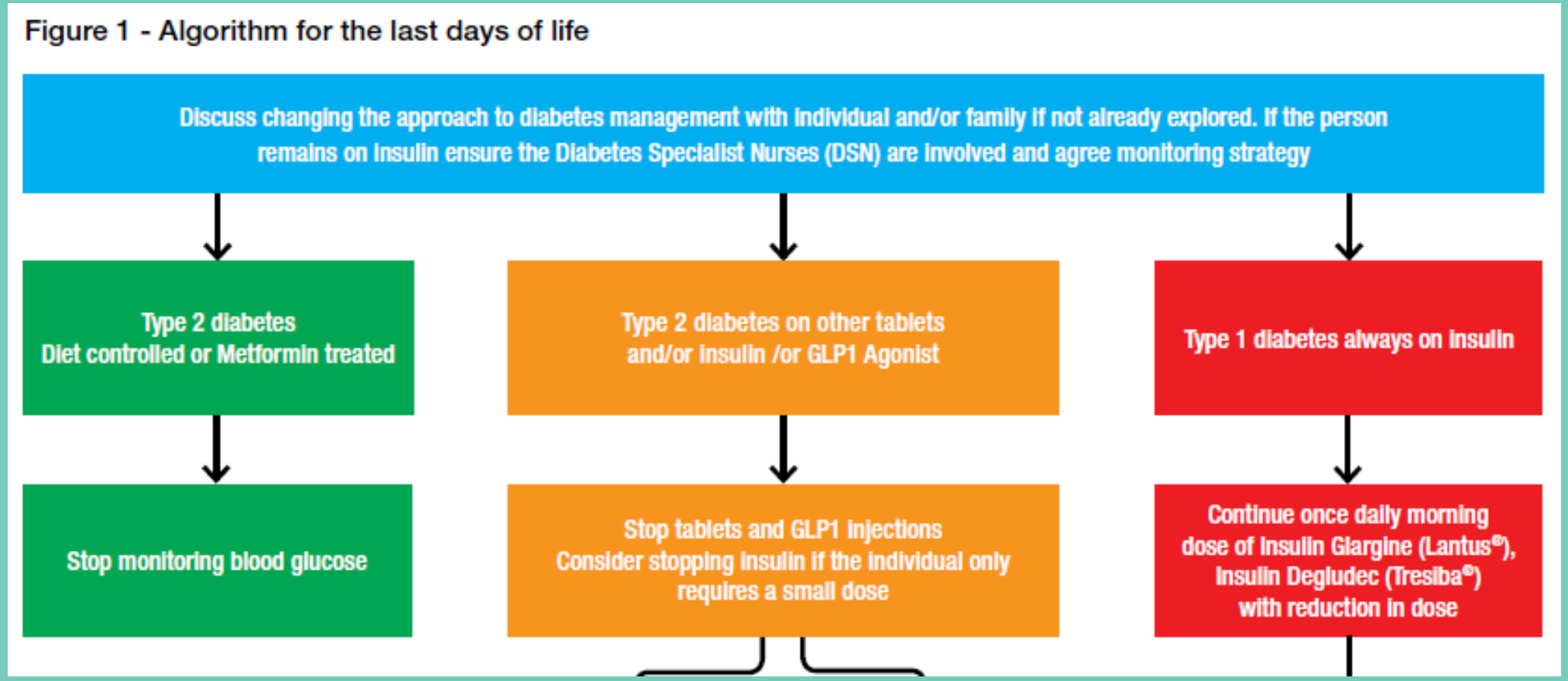
D - Red “Days” Final days / Terminal Care Days prognosis

Ideally by this stage diabetes treatment has been minimised so that few changes are needed in the last days of life. If the stage is reached where the individual is bed bound, semi-comatose, no longer able to take tablets, no longer able to eat and only able to take sips of fluid. The use of a local protocol or advice from the specialist team may guide your decision making.

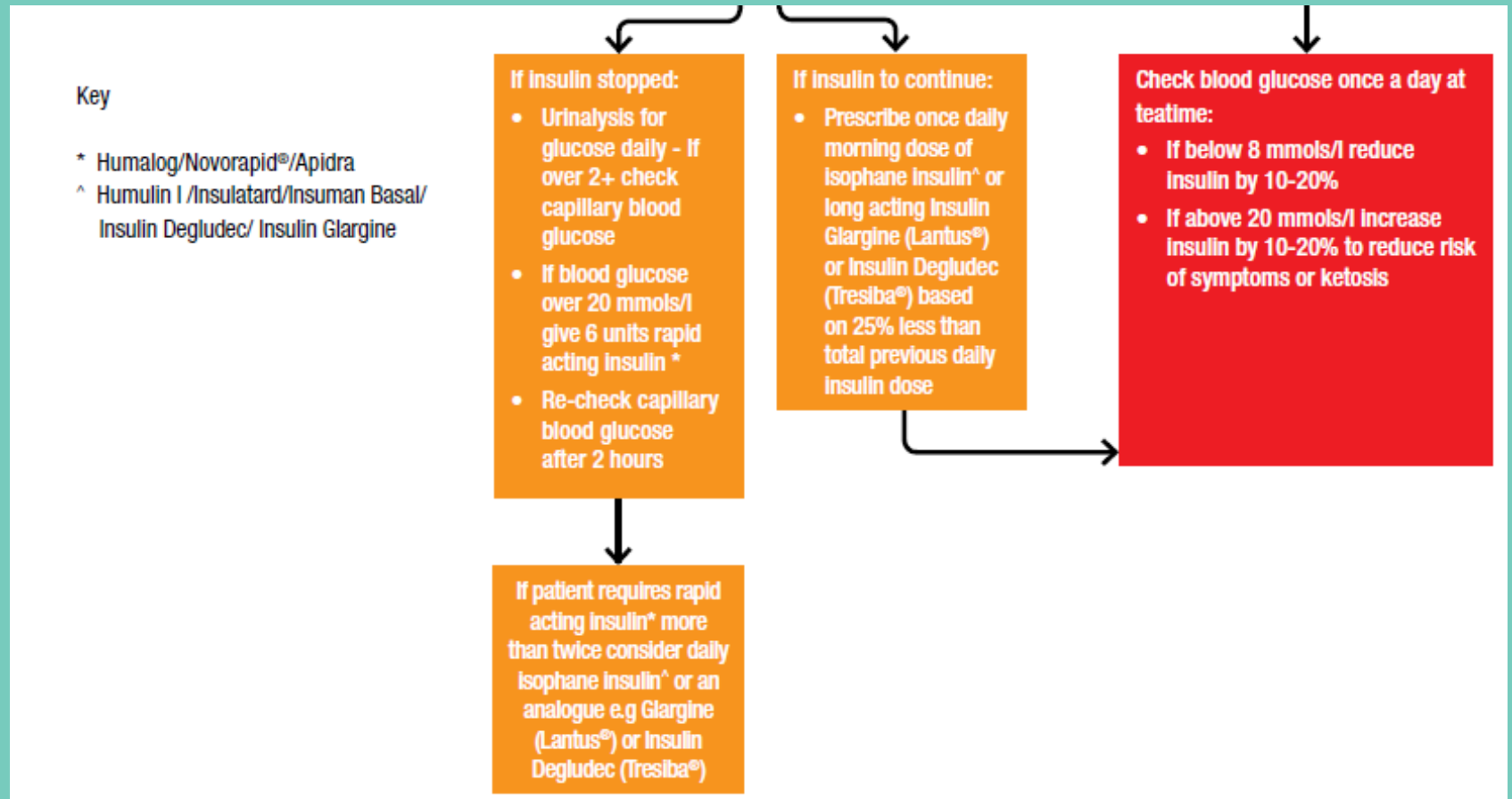
At this stage, the Flowchart for Diabetes at End of Life (Fig 1 page 23) , describes how to manage diabetes in the dying individual. It can be reassuring for relatives and carers to know that this additional plan of care is being followed and that the diabetes is being managed differently rather than being “ignored”.

The flowchart has been devised to minimise symptoms of diabetes and keep invasive testing to the minimum needed to achieve that aim.

Algorithm for last days of life – Part 1



Algorithm for last days of life – Part 2



- Keep tests to a minimum. It may be necessary to perform some tests to ensure unpleasant symptoms do not occur due to low or high blood glucose
- It is difficult to identify symptoms due to "hypo" or hyperglycaemia in a dying patient
- If symptoms are observed it could be due to abnormal blood glucose levels
- Test urine or blood for glucose if the patient is symptomatic
- Observe for symptoms in previously insulin treated patient where insulin has been discontinued.
- Flash glucose monitoring may be useful in these individuals to avoid finger prick testing

Table 1: Medicines Management – Non - Insulin therapies					
Metformin (Standard Metformin or Glucophage SR®)	Sulphonylureas (Gliclazide / Glipizide / Glimepiride / Repaglinide	Pioglitazone	Gliptins (Alogliptin, Linagliptin, Saxagliptin, Sitagliptin)	GLP-1 analogues (Exenatide or Liraglutide, Lixisenatide, Bydureon and Dulaglutide)	Sodium Glucose Co-Transporter 2 Agents (SGLT2) Dapagliflozin Empagliflozin and Canagliflozin
Risk of hypoglycaemia with non insulin therapies when used as mono therapy					
✖ No Risk	✔ Moderate Risk	✖ No Risk	✔ Low risk	✖ No risk	✔ Low risk
General Considerations					
Review dose according to changing renal function	Review if dietary intake is reduced and/or there is significant weight loss	The risk-benefit ratio for Pioglitazone in individuals with terminal disease requires review and should be only prescribed if benefits can clearly be identified	Review doses in accordance with individual licences if renal function deteriorates	Review if eating patterns change or significant weight loss occurs	Refer to SPC* for doses
Withdraw if creatinine >150mmols/l or eGFR < 30ml/ l/1.73m^2	Review dose if renal or liver function deteriorates and consider a switch to Tolbutamide		Some gliptins can be used for all stages of renal disease	Withdraw if abdominal pain or pancreatitis develops	Refer to individual SPC* for renal guidance
Review if gastrointestinal disease is present or symptoms of nausea, heartburn, diarrhoea or flatulence are making individuals miserable with discomfort	Review Tolbutamide dose if liver function deteriorates as hypoglycaemia may occur	Should not be used in individuals with or at risk of bladder tumour or heart failure	Combination with sulphonylurea increases the risk of hypoglycaemia	Refer to individual product SPC* for doses.	Stop if evidence of clinical dehydration peripheral vascular disease/ foot ulceration in acute illness and pre-surgery. Test for ketones if there is acute illness

Guideline Contents 3rd edition March 2018

- Introduction
- Medication – insulin and non-insulin
- Vulnerable special populations
- Nutrition
- Advance Care Planning
- Steroid therapy
- Hypoglycaemia
- Sick day management
- Withdrawal of treatment
- Competencies/workforce training
- Appendices

Key Recommendations

RECOMMENDATIONS:

These clinical care recommendations emphasise the following:

- The need to balance benefits of diabetes interventions with prognosis/estimated time of life left
- As end of life approaches to minimise interventions and monitoring to keep the individual comfortable without compromising safety (i.e. avoid DKA or other metabolic complications)
- To involve individuals and family in decisions about diabetes management
- Diabetes management requirements can change quickly with steroid use, weight loss, liver or renal disease
- Involve the diabetes specialist nurse and dietitian especially if the individual has type 1 diabetes or type 2 treated with insulin

Cardiology medications

Reason for Discontinuation

- Hypertension in most cases are asymptomatic
- Tight blood pressure control - long term benefit
- Pill burden, most only available as oral formulation
- Risk of symptomatic HYPO-tension at end-of-life is higher - Dizziness, Syncope, Falls, Fatigue
- Frequent monitoring? E.g dose in cachexia, loss appetite, reduction fluid intake
- Requirement less e.g reduction in fluid overload, blood volume, weight loss, other medications adrenergic effects

Cardiology medications

Reason for Continuation

- Indications for use matters
- Beta blockers and symptomatic palpitations
- Reducing BP in risk of terminal haemorrhage, haemorrhagic stroke.
- Preserving function with ACE in heart failure
- Need for diuresis may change. Furosemide can be given as a CSCI via syringe driver

Could too low blood pressure in old age increase mortality?

British Geriatric Society
12 MARCH 2019

- https://www.bgs.org.uk/blog/could-too-low-blood-pressure-in-old-age-increase-mortality

Anticoagulation

- Evidence behind anticoagulation in cancer and non cancer patients is not based on patients at the end of life. RCA exclusion criteria (less than 6 months or ECOG PS>2)
- Therefore limited data or evidence on its use on patients at the end of life
- Numbers needed to treat for example in AF were not based on patients at the end of life
- **This leaves our only options as clinicians to have a risk / benefit discussion with patient and individualise the decision**

Venous Thromboembolism in Palliative Care
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6752239/

Anticoagulation

- The risk of bleeding from anticoagulation may be higher in end of life patients because of alterations in renal function, malnutrition, and multiple drug-drug and drug-disease interactions
- While D-dimers are routinely used in the diagnostic work up for VTE, they have little utility in the cancer setting
- Levels may be raised in the presence of recent surgery, liver disease, cancer, pregnancy and infection

Anticoagulation

- The current data supports low molecular weight heparin as the first line management of cancer associated venous thromboembolism.
- New data shows that direct-acting oral anticoagulants (DOACs) have a lower rate of venous thromboembolism recurrence but this comes at an expense of major bleeding.
- Major bleeding on DOACs is most marked in gastrointestinal and urothelial tumours.
- Patients with poor performance status and short prognosis are unlikely to benefit from thromboprophylaxis.
- Consider stopping anticoagulation in patients with advanced cancer as death approaches.

Summary

- Recognition of the end of life
- Medication decisions;

1. Anticonvulsants
2. Diabetes medications
3. Cardiology medications – antihypertensives and diuretics
4. Anticoagulation

Resources

https://www.eolc.co.uk/ | Mail – jessrweller@hotmail.com | End of life care | Education...

END OF LIFE CARE

Home | Professional | Public | Directory | Search

Professional Resources

Links to support health and social care professionals who look after patients and carers towards the end of life

View Library

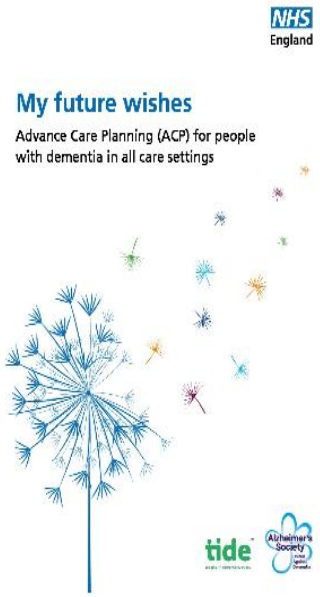
Public Resources

Links to national and local resources that support patients and carers towards the end of life

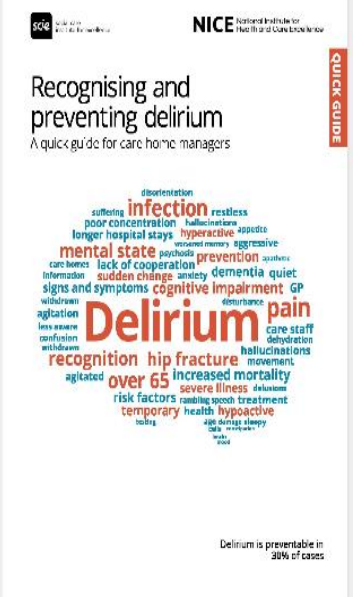
View Library

ReSPECT Letter to Lincolnshire Clinicians

A letter explaining Lincolnshire decision to adopt ReSPECT as a replacement for the current DNACPR f...



My future wishes – Advance



Recognising and preventing

SystmOne CD1 Anticipatory Prescribing Resou...

For SystmOne users. This zip (compressed) file should contain all you need to download the palliativ...

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Palliative Care Adult Network Guidelines Plus

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Cwm Taf Health Board, Wales

Additional Information for Info Plus

Scottish Palliative Care Guidelines

Healthcare Improvement Scotland
NHS SCOTLAND

Updates

15/01/2020

The research bulletin for January is now available

Home

The Scottish Palliative Care Guidelines reflect a consensus of opinion about good practice in the management of adult patients with life limiting illness. They are designed for healthcare professionals from any care setting who are involved in supporting ndition.

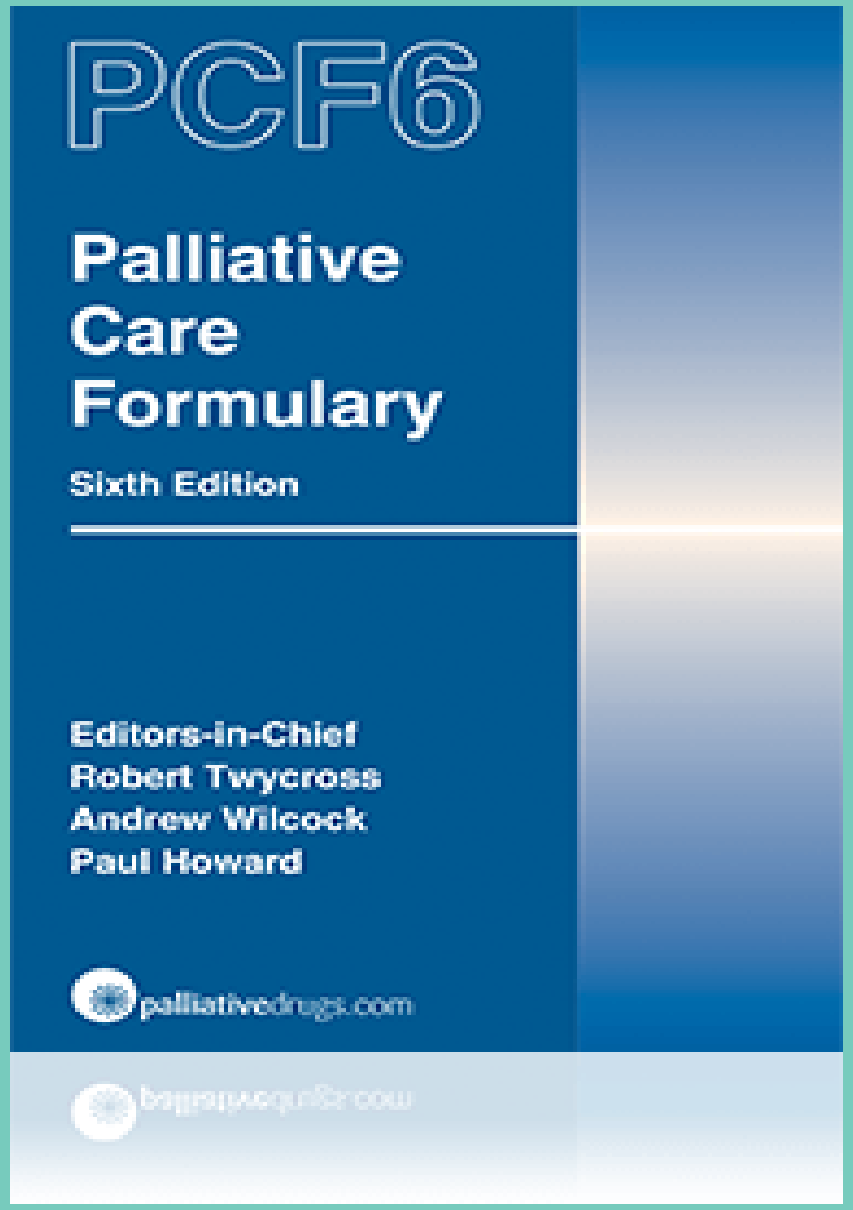
by a multidisciplinary group of professionals working in the community, hospital and ughout Scotland supported by Healthcare Improvement Scotland.

ions will not ensure a successful outcome in every case. It is the responsibility of all ement in the management of individual patients. Palliative care specialists occasionally use drug combinations.

The online version of the guidelines contains the most up to date information. Printed versions cannot be considered to be current.

Updates and amendments made to the online guidelines will be detailed in the News and Updates section.

Selected guidelines are available as a mobile app for iPhone and Android and the content of the apps is in the process of being updated in accordance with the website. Visit the Mobile App page for more information and how to access.


PCF6
Palliative Care Formulary
Sixth Edition
Editors-in-Chief
Robert Twycross
Andrew Wilcock
Paul Howard
palliativedrugs.com

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Thank you. Any Questions?