Dementia and Diabetes

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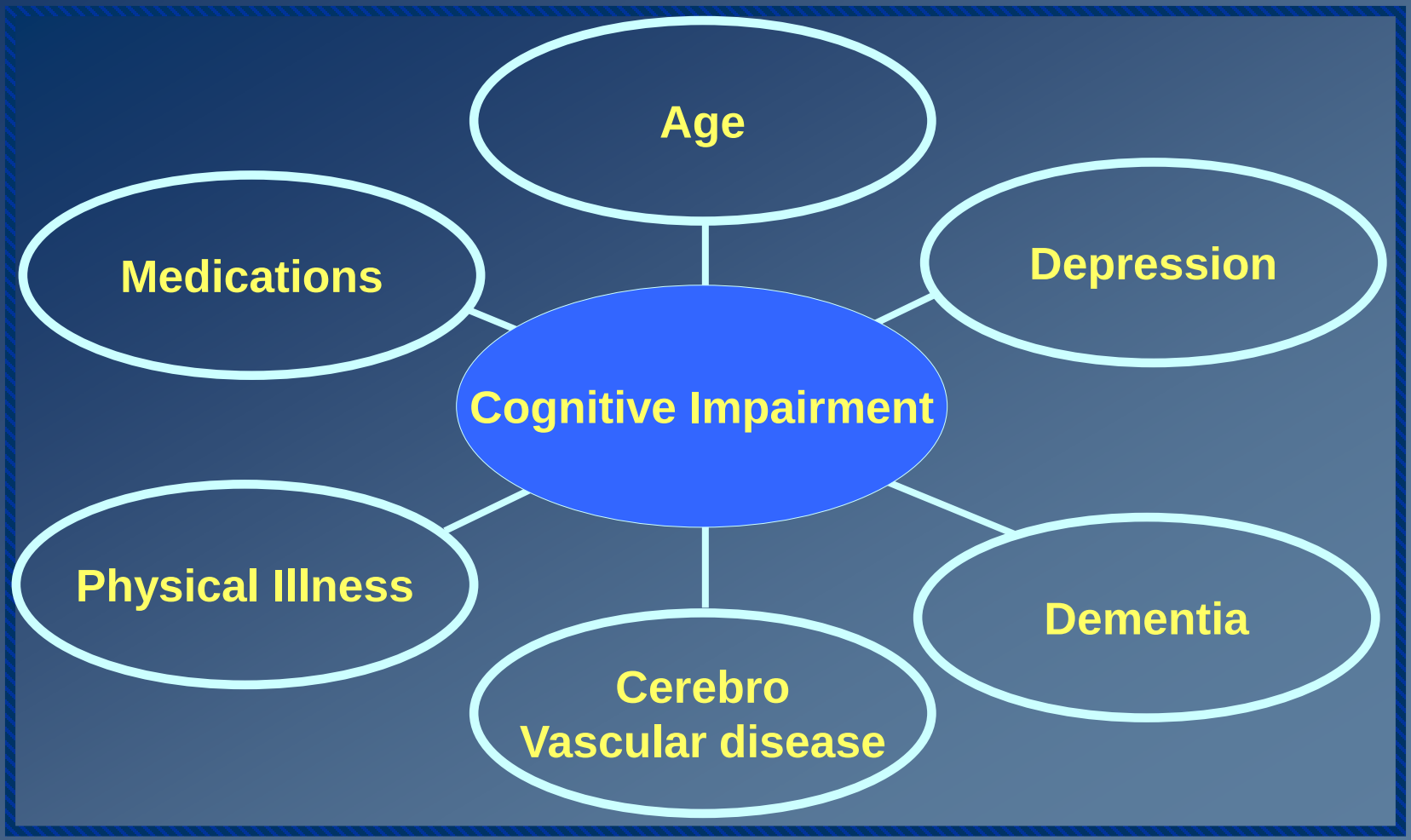
Dementia and Diabetes - Overview

- The Facts
- Implications for the “Well Pathway”
- Mild Cognitive Impairment Considerations
- Diabetes and Dementia Considerations
- Key Messages

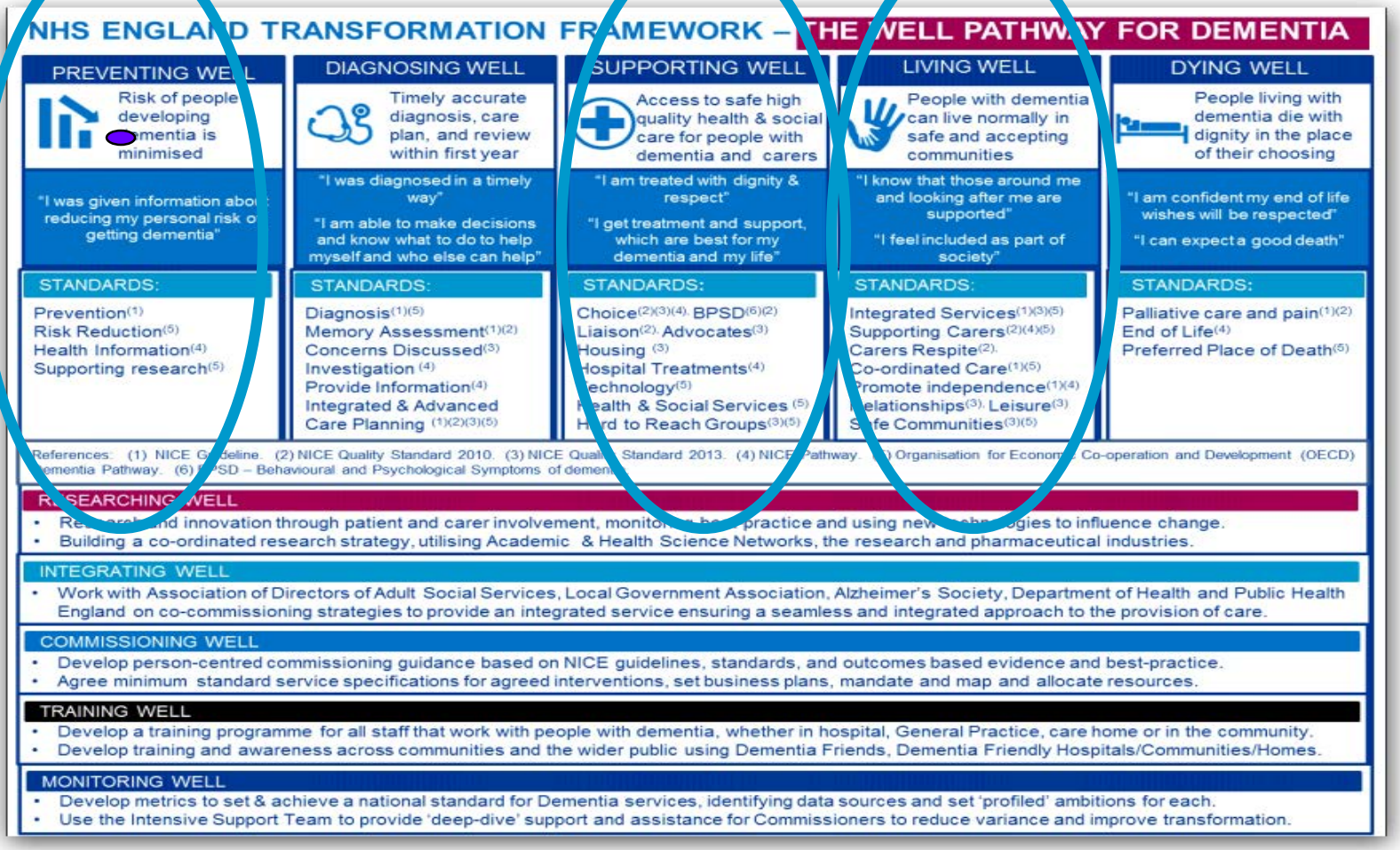
Dementia and Diabetes – the Facts

- People with type 2 diabetes may have twice the risk of developing dementia compared with people without diabetes (Biessels et al, 2006).
- Diabetes and dementia are both increasing in numbers:
  - 800,000 people with dementia in UK in 2012 (Alz Soc, 2012)
  - 3 million people with diabetes (Diabetes UK, 2012)
- Both Dementia and Diabetes are progressive, long-term conditions affecting the same group
- *Dementia* makes management of diabetes difficult
  AND
  poorly controlled *Diabetes* impacts negatively on the safety and well-being of people with dementia (Biessels et al, 2006)

Cognitive Impairment: Contributions –
Not all Dementia; Maybe more than one Cause!



The “Well Pathway”



Dementia Recognition & Risk Reduction

Not just for Primary Care it is everyone's responsibility

- Community Pharmacist, Community / Multidisciplinary Teams
- Practice / Specialist nurses - Diabetic, Parkinson's
- Social Care

Who is at Risk ?

- Age is the most important risk factor (especially >70 yrs)
- People with certain LT conditions:
  - *Diabetes*, cardiovascular disease, Parkinson's disease
  - Learning Disability – Downs Syndrome ≥40yrs; others ≥60 yrs

Risk Reduction and Recognition:

- Control of LT conditions in 40's and 50's
- important role for Practice / Specialist nurses - Diabetic, Parkinson's
  - LT condition reviews

Dementia Recognition needs to be embedded in everyday practice to maintain Dementia Registers

Diabetes & Mild Cognitive Impairment (MCI)

- **An important clinical issue:**
  - Up to 20% of people convert to dementia each year
  - Risk factors: Age, LT conditions - ***DIABETES***
  - Especially if poorly controlled !

Actions:

- Look for people with MCI code
  - Problem Page, ask Practice how they code this
- Annual review of memory / function
  - Two simple questions:
  - How are you doing? Any changes since your visit to the clinic last year where you discussed (whatever the concerns were – Memory function)
- If No change / improvement – review next year
- If deterioration – evaluate as per all cases of Cognitive Impairment
  - Remember differential; maybe more than once cause

MCI Read Codes Eu057; CTv3 code X00RS

Diabetes: QDiabetes-2018 Risk Prediction

Model A

- Age, ethnicity, deprivation,
- Body mass index
- smoking,
- FH diabetes in 1St degree relative,
- Cardiovascular disease, treated Hypertension
- Regular use of corticosteroids,

New Risk Factors:

- Atypical antipsychotics, statins, schizophrenia or bipolar affective disorder, learning disability, and gestational diabetes, polycystic ovary syndrome in women.

Model B:

- Same variables as model A plus fasting blood glucose.

Model C:

- Included HBA1c instead of fasting blood glucose.

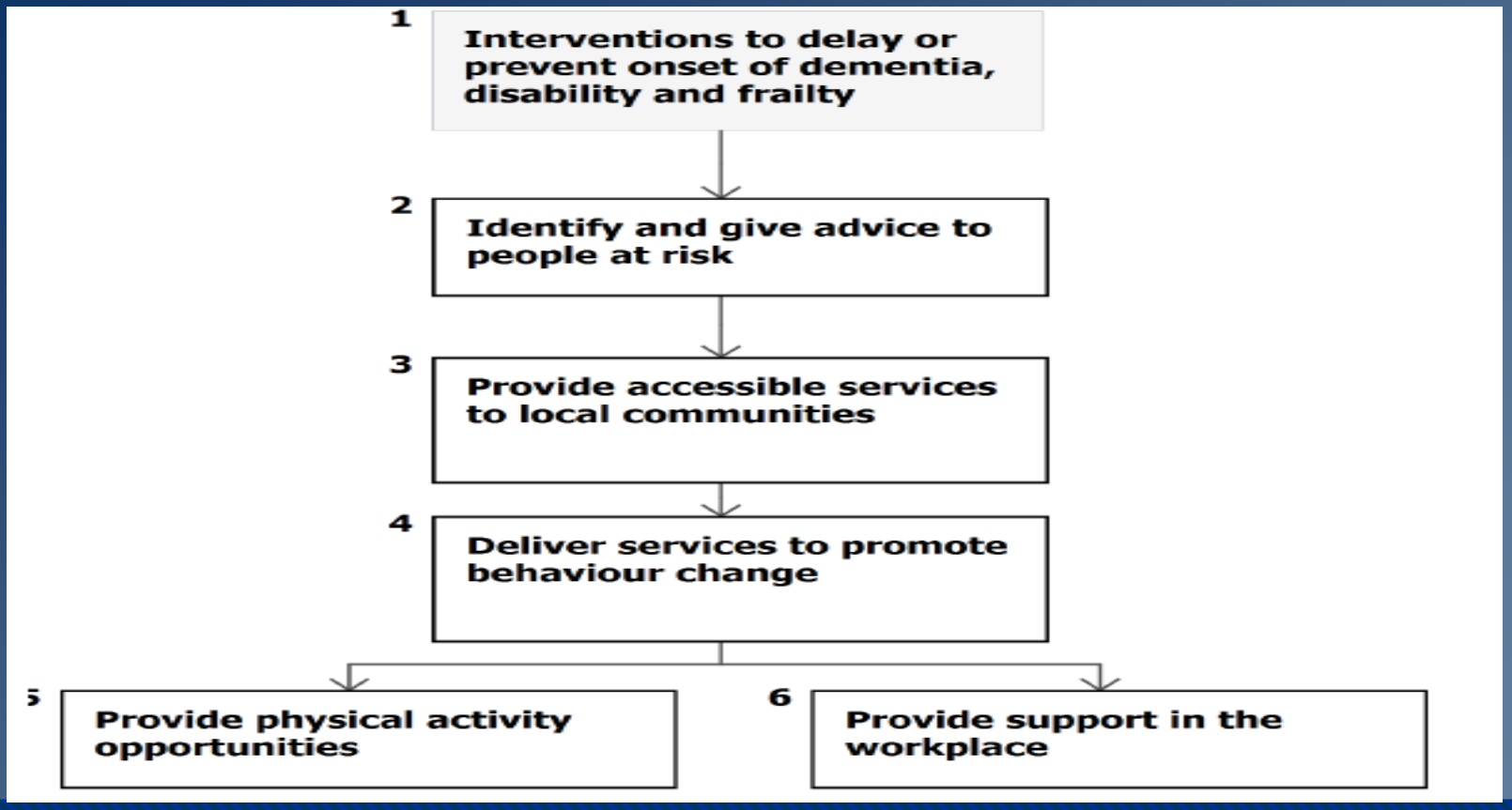
Comparison:

- Model A does not require a blood test, useful to identify pts for fasting blood glucose or HBA1c.
- Model B:
  - Best for predicting 10 yr risk type 2 diabetes
  - Identifying those needing interventions / more intensive follow-up,

Ref: Hippisley-Cox doi 10.1136/bmj.j5019 | BMJ 2017;359:j5019

Dementia and Diabetes - Prevention

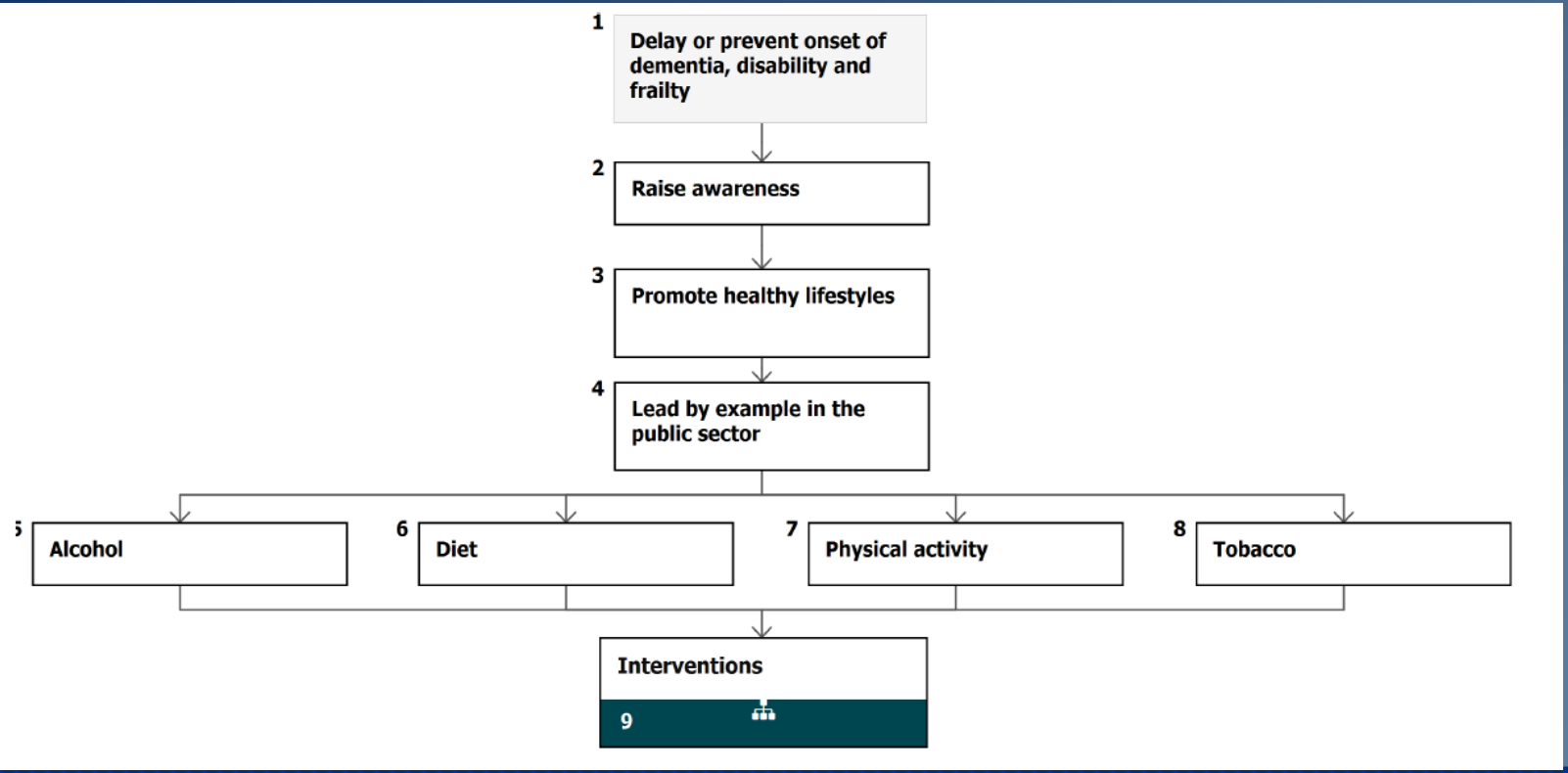
Interventions to delay / prevent onset of dementia, disability & frailty



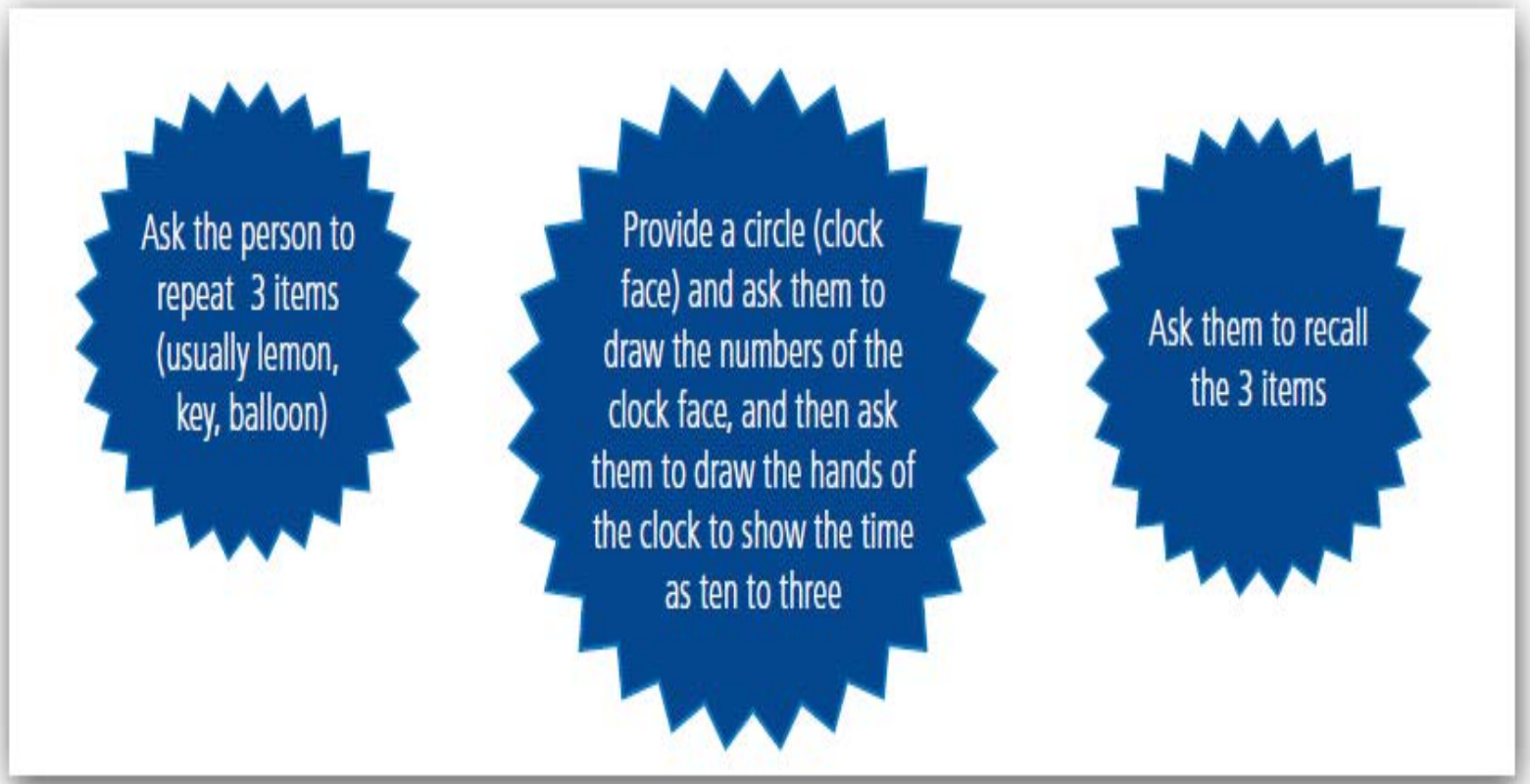
Ref: pathways.nice.org.uk/pathways/dementia-disability-and-frailty-in-later-life-mid-life-approaches-to-delay-or-prevent-onset May 2017

Dementia and Diabetes -Prevention

- Strategy, policy and commissioning to delay or prevent onset of dementia. Diabetes and frailty



Screening for Dementia: Mini-Cog



Ref: Diabetes and Dementia Guidance on Practical Management 2013, TREND-UK - Trend-uk.org
Institute of Diabetes for Older People IDOP – instituteofdiabetes.org

Diabetes and Dementia: Good Care

- Issues people with Dementia who develop *Diabetes*:
  - Incontinence need to pass urine more often unable to find toilet
  - ↑ risk falls due to more frequent visit to the toilet
  - Risk of confusion if ↑ blood glucose & / or dehydration
  - Distress if usual diet changed significantly
  - Distress, wandering, rocking movements, crying if they have pain and are unable to put this into words

- Issues people with *Diabetes* who develop Dementia:
  - Forgetting to take medications regularly
  - Forgetting taken medication so at risk of double dosing
  - Forgetting how to do injections
  - Unable to make decisions about interpreting blood glucose results such as adjusting insulin doses or treating hypoglycaemia
  - Missed meals & drinks, ↑ risk low blood glucose / dehydration
  - Forgetting they have eaten and at risk of ↑ glucose levels if they eat again

Ref: Diabetes and Dementia Guidance on Practical Management 2013, TREND-UK - Trend-uk.org
Institute of Diabetes for Older People IDOP – instituteofdiabetes.org

Diabetes and Dementia: Implications

- People who have had diabetes for many years may have been very skilled at managing their own injections, blood tests, but the onset of dementia will mean they become increasingly less competent at these skills.

- People with dementia who develop diabetes may appear to have a worsening of their dementia because of the diabetes symptoms.

Ref: Diabetes and Dementia Guidance on Practical Management 2013, TREND-UK – Trend-uk.org Institute of Diabetes for Older People IDOP – instituteofdiabetes.org

Diabetes and Dementia Care Plans
Points to Consider – Keeping Me Safe

Keeping me safe	
	• Agree appropriate blood glucose levels with the person's diabetes team. This should avoid the risk of low blood glucose levels (hypoglycaemia) but also avoid glucose levels being so high that symptoms of high blood glucose affect day to day living (such as tiredness, thirst, frequency of urination) • Be observant for signs of low blood glucose in people taking insulin or tablets with a risk of hypoglycaemia. Know how to treat it, and ensure appropriate treatments are available • If they are still able to inject insulin but are forgetful, the carer can keep it in a locked box until it is needed
Cognitive ability (What can I still do, what do I find difficult)	
	• Support self-care (or care given by their partner) as long as possible (e.g. testing blood glucose, injecting insulin). Review self-care ability regularly • Ask the GP to simplify medication regimes and tablet load, preferably once daily. Ask the pharmacist about tools to support self-medication such as blister packs and timed 'dosset' boxes. However, these are not helpful in people who have no awareness of time or day
Biography (life story)	
	• Some people may have had diabetes for a long time

Ref: Diabetes and Dementia Guidance on Practical Management 2013, TREND-UK - Trend-uk.org
Institute of Diabetes for Older People IDOP – instituteofdiabetes.org

Diabetes and Dementia Care Plans
Points to Consider - Personality

Personality	
	• Symptoms of diabetes or the complications of diabetes may be ignored and assumed as personality traits. Loud aggression may be a symptom of low blood glucose for example
Physical health	
	• Toilet training is a skill learnt at an early age and so is not lost initially but the person may have difficulty in completing the tasks with going to the toilet, resulting in apparent incontinence
Environment	
	• Meals should be provided in a calm and distraction free environment • Encourage a nourishing diet that provides sufficient calories to maintain ideal weight and fits the person's usual meal pattern. Smaller portions of items in a familiar diet may be easier to achieve than completely removing items or making big changes to eating patterns • Verbal and non-verbal communication: use calm tone when speaking, use short sentences with small amounts of information, make time for person to answer, maintain eye contact

Ref: Diabetes and Dementia Guidance on Practical Management 2013, TREND-UK - Trend-uk.org
Institute of Diabetes for Older People IDOP – instituteofdiabetes.org

Diabetes and Dementia Care Plans
Points to Consider - Nutrition

Barriers to healthy eating in people with diabetes and dementia include the following

Memory problems	Forget to eat meals or forget that they have already eaten
Agnosia	May not recognise food, cutlery, or even those caring for them
Dysphasia	Unable to say they are hungry or feel "hypo" (have low blood glucose)
Dysphagia	Problems chewing and swallowing
Dyspraxia	Can impair people's ability to prepare food and to use utensils
Executive Dysfunction	Impacts on the ability to plan the preparation of food and/or drinks

Ref: Diabetes and Dementia Guidance on Practical Management 2013, TREND-UK - Trend-uk.org
Institute of Diabetes for Older People IDOP – instituteofdiabetes.org

Diabetes and Dementia Competency Framework for Carers in Care Homes – Self-Care

Unregistered practitioner	• support the person to develop self-care skills with guidance from a registered nurse where appropriate • observe and report any concerns that might affect the ability of the person with diabetes to self-care due to dementia • encourage people to use their personalised care plans where appropriate if there is mental capacity to do so • support the person with diabetes & dementia to carry out activities of daily living where there is no mental capacity to do it for themselves
Competent nurse	• As 1, and: • assess ability to self-care and work with the person with diabetes & dementia & significant others to optimise self-care skills • direct people to information and support to encourage informed decision-making about living with diabetes and dementia to managing life events • support them in realistic goal setting and achievement of those goals through care planning recognising the cognitive abilities of the person with diabetes and dementia • refer to the GP or diabetes specialist team for support when necessary
Care /Service Manager	• identify service shortfalls and develop a strategic action plan for the diabetes & dementia service to address these • work with stakeholders to develop a culture of client centered approach for patients with diabetes & dementia • ensure that national guidance specifically related to diabetes and dementia is implemented and monitored in the care setting

Ref: Diabetes and Dementia Guidance on Practical Management 2013, TREND-UK - Trend-uk.org
Institute of Diabetes for Older People IDOP – instituteofdiabetes.org

Diabetes and Dementia Competency Framework: Carers in Care Homes – Glucose Monitoring

This competence links with the NHS Skills for Health HA8 & HA9

Unregistered practitioner	• perform the test according to manufacturer's instructions and local guidelines • perform the test unsupervised as required • document and report the result according to local guidelines • recognise and follow local quality assurance procedures, including disposal of sharps. • recognise hypoglycaemia and be able to give glucose • understand the normal range of glycaemia and report readings outside this range to appropriate person
Competent nurse	• As 1, and: • interpret the result and report to appropriate person if outside the expected range for the individual • teach procedure to person with diabetes/carer • identify situations where testing for ketones is appropriate. • refer to the GP or diabetes specialist team to support & guide the interpretation of results • teach clients with diabetes and dementia to interpret results and take appropriate action if they are capable.
Care/service Manager	• identify service shortfalls and develop strategic plan for the service to address these • work with stakeholders to develop/implement local guidelines for use, promoting evidence-based practice and cost effectiveness

Ref: Diabetes and Dementia Guidance on Practical Management 2013, TREND-UK - Trend-uk.org
Institute of Diabetes for Older People IDOP – instituteofdiabetes.org

Diabetes and Dementia Competency Framework: Carers in Care Homes – Hypoglycaemia

Unregistered Practitioner	• state the normal range of blood glucose level • describe signs and symptoms of hypoglycaemia • demonstrate competent use of blood glucose monitoring equipment to confirm hypoglycaemia • offer appropriate treatment as per local guidelines • give reassurance and comfort to the person with diabetes/significant others • document and report to registered nurse • if patient unresponsive, ensure clear airway and call emergency services
Competent Nurse	• As 1, and: • list possible causes of hypoglycaemia including physical activity • ensure appropriate hypoglycaemia treatments are available & in date • identify patients at high risk of hypoglycaemia and recognise when treatment may need to be adjusted • recognise and discuss possible reasons for hypoglycaemia with the person with diabetes including hypo unawareness and frequent hypoglycaemia • participate in educating other professionals and carers in identification, treatment and prevention of hypoglycaemia
Care/ service manager	• ensure/develop standard operating procedures are in place to treat hypoglycaemia • identify service shortfalls and develop strategic plan for the service to address these • work with stakeholders to ensure systems & processes are in place to reduce attendance to A&E, ambulance callouts and admission to hospital for episodes of severe hypoglycaemia

Ref: Diabetes and Dementia Guidance on Practical Management 2013, TREND-UK - Trend-uk.org
Institute of Diabetes for Older People IDOP – instituteofdiabetes.org

Diabetes and Dementia Competency Framework for Carers in Care Homes – Hyperglycaemia

Unregistered Practitioner	• state the normal range of blood glucose levels • describe signs and symptoms of hyperglycaemia • perform blood /urine ketone test according to local guidelines • correctly document results and report those out of accepted range
Competent nurse	• As 1, and: • document and report signs & symptoms of hyperglycaemia • recognise and provide appropriate treatment for the different levels of hyperglycaemia • list possible causes of hyperglycaemia including concordance with current medication, excessive carbohydrate intake and intercurrent illness • make appropriate referral to the GP • administer/advise treatment to resolve hyperglycaemia in accordance with individual management plan
Care/service manager	• ensure there are standardised operating procedures in place to manage hyperglycaemia/DKA/ HHS • identify service shortfalls and develop strategic plan for the service to address these • work with stakeholders to ensure systems & processes are in place to reduce attendance to A&E Ambulance callouts and admission to hospital for episodes of DKA, HHS and severe hyperglycaemia

Ref: Diabetes and Dementia Guidance on Practical Management 2013, TREND-UK - Trend-uk.org
Institute of Diabetes for Older People IDOP – instituteofdiabetes.org

Diabetes and Dementia Competency Framework: Carers in Care Homes - Nutrition

This competence links with the NHS Skills for Health HA5 & HA6

Unregistered practitioner	• follow the nutritional plan and report any related problems • recognise foods and drinks that are high in sugar • be able to measure and record weight accurately
Competent nurse	• list the principles of a healthy balanced diet • be able to calculate and interpret Body Mass Index (BMI) • recognize which foods contain carbohydrate and how these affect blood glucose level • ensure clients with diabetes and dementia are supported to have a healthy balanced diet • identify people at risk of malnutrition and situations where healthy eating advice is inappropriate • refer the person with diabetes & dementia to a diabetes dietitian when appropriate • refer the client with diabetes and dementia to the GP or diabetes specialist team if glycaemic control is suboptimal • work in partnership with the person with diabetes and dementia and their carers to identify realistic and achievable dietary changes • know the dietary factors that affect blood pressure and lipid control
Care /Service Manager	• identify service shortfalls and develop strategic plan for the service to address these • work with stakeholders to develop/implement local guidelines and interventions, promoting evidence-based practice and cost effectiveness

Ref: Diabetes and Dementia Guidance on Practical Management 2013, TREND-UK - Trend-uk.org
Institute of Diabetes for Older People IDOP – instituteofdiabetes.org

Diabetes and Dementia Competency Framework: Carers in Care Homes – Intercurrent Illness

Unregistered practitioner	• identify common signs of intercurrent illness and report to a registered nurse • document and report any abnormal findings from observations • be aware of the impact of intercurrent illness on glycaemic control
Competent nurse	• As 1, and: • take a comprehensive assessment and patient history • initiate appropriate preliminary investigations • know how and when to refer for specialist treatment • administer baseline treatment • give advice regarding continuance of treatment for diabetes • refer to the GP or diabetes specialist team for support with the following: - interpret results and initiate appropriate action - support the person with diabetes and/or carers in managing diabetes during intercurrent illness - give advice about sick day management including ketone testing where appropriate according to local policy - educate nurses / carers about sick day management • recognise when treatment may need adjusting
Care /service manager	• identify service shortfalls and develop strategic plan for the service to address these • monitor trends on hospital admissions for illness-induced diabetes emergencies and work with relevant agencies to reduce these

Ref: Diabetes and Dementia Guidance on Practical Management 2013, TREND-UK - Trend-uk.org Institute of Diabetes for Older People IDOP – instituteofdiabetes.org

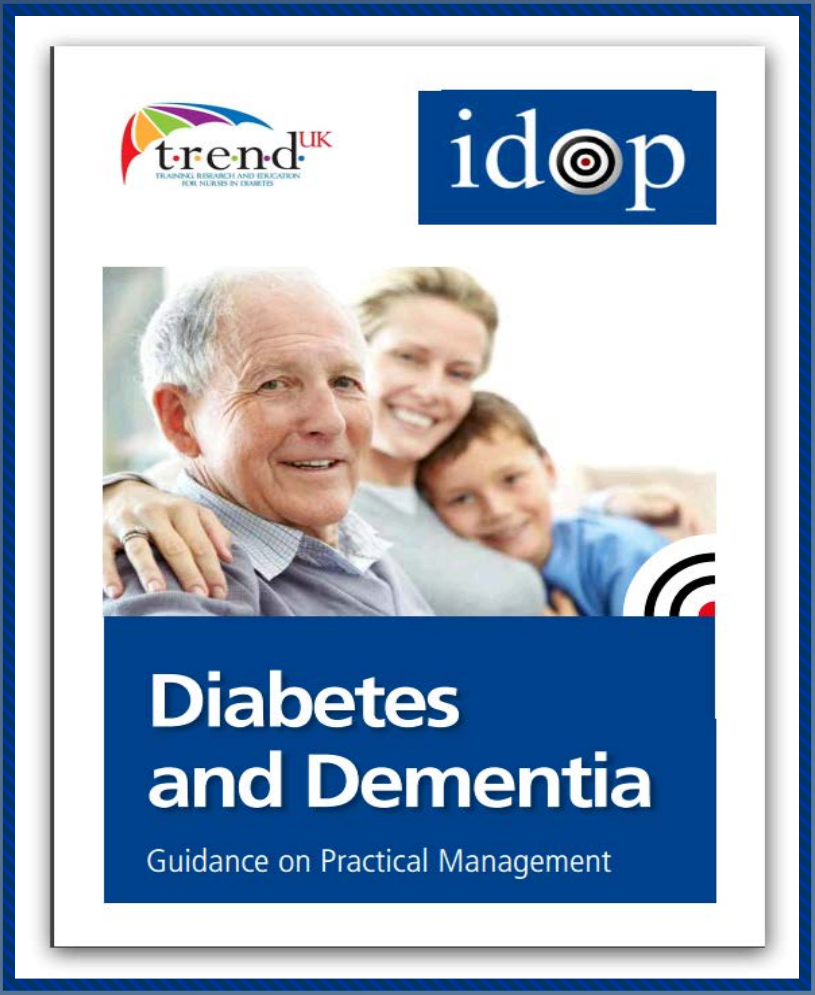
Dementia and Diabetes

Type 2 diabetes in Adults: Management

- Consider ***relaxing the target HbA1c level*** (see recommendations 1.6.7 and 1.6.8) on a case by case basis, with particular consideration for people who are older or frail, for adults with type 2 diabetes:
  - Who are unlikely to achieve longer term risk reduction benefits, for example, people with a reduced life expectancy
  - For whom tight blood glucose control poses ***a high risk*** of the consequences of ***hypoglycaemia***, for example, people who are at risk of falling, people who have ***impaired awareness of hypoglycaemia***, and people who drive or operate machinery as part of their job
  - For whom intensive management would not be appropriate, for example, people with ***significant comorbidities***. [new 2015]

Ref: NICE Guideline 28 Dec 2015

Diabetes & Dementia Good Care Planning: Core Elements



Key Messages

- **Diabetes and dementia:**
  - Are both common conditions
  - They impact negatively on each other
  - The person who has both will have increasingly complex needs.
- **Efforts need to be directed not only to dementia recognition and management but also risk reduction and prevention**
- **The wider health care Team needs to be knowledgeable about:**
  - Screening tools for dementia
  - Interaction between DEMENTIA and other LT conditions
- **Care Plans should be holistic, pt centred and take into account:**
  - All relevant conditions
  - Physical, psychological and social needs
  - Carer needs
- **Carers (both formal and informal) require particular skills to provide safe and appropriate care for people with LT conditions and Dementia**
- **Working collaboratively across conditions will help to achieve better outcomes - National Ambitions, QoL for pts and carers**

Dementia Diagnosis Rate and Care Plans are the subject of National Ambitions

Thank You

Great things are done by a series of small things brought together.

Vincent van Gogh