Supporting Primary Care outside of an Out patient based system

David Millar-Jones FRCP
Chair PCDS UK and Ireland
WEDS executive committee
Welsh Diabetes implementation group committee
DUK Wales steering committee
WAG cross Party Diabetes Committee
NSAG Diabetes

Associate Specialist in Diabetes
GP.wSi. Diabetes and Obesity
Honorary Lecturer Cardiff University
General Practitioner

National Service Framework

- Prevention
- Identification
- Empowerment
- Care of Adults
- Care of children
- Diabetic emergencies
- Inpatient care
- Pregnancy
- Detection and management of complications

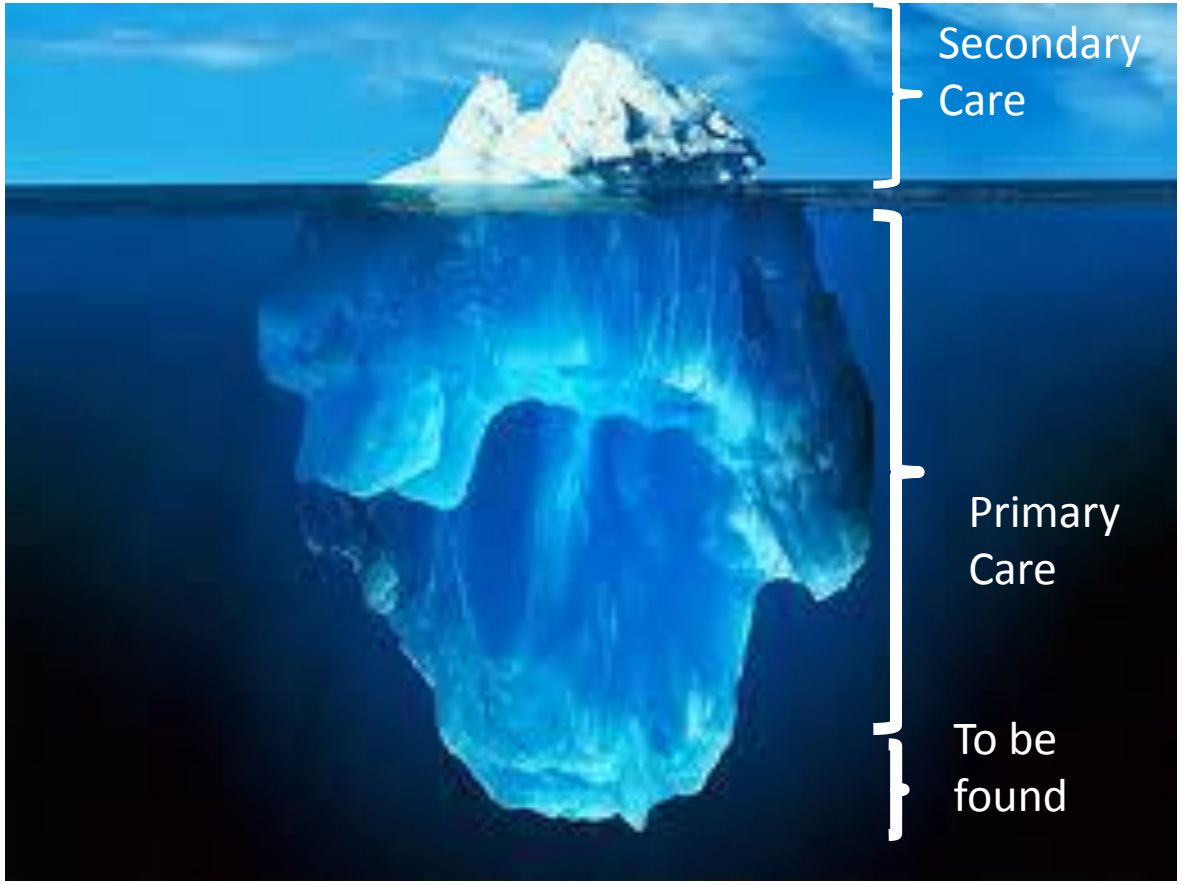
House of Commons Report

- "…… not effectively supported to manage their condition and do not always receive care from appropriately trained professionals across Primary and Secondary care."

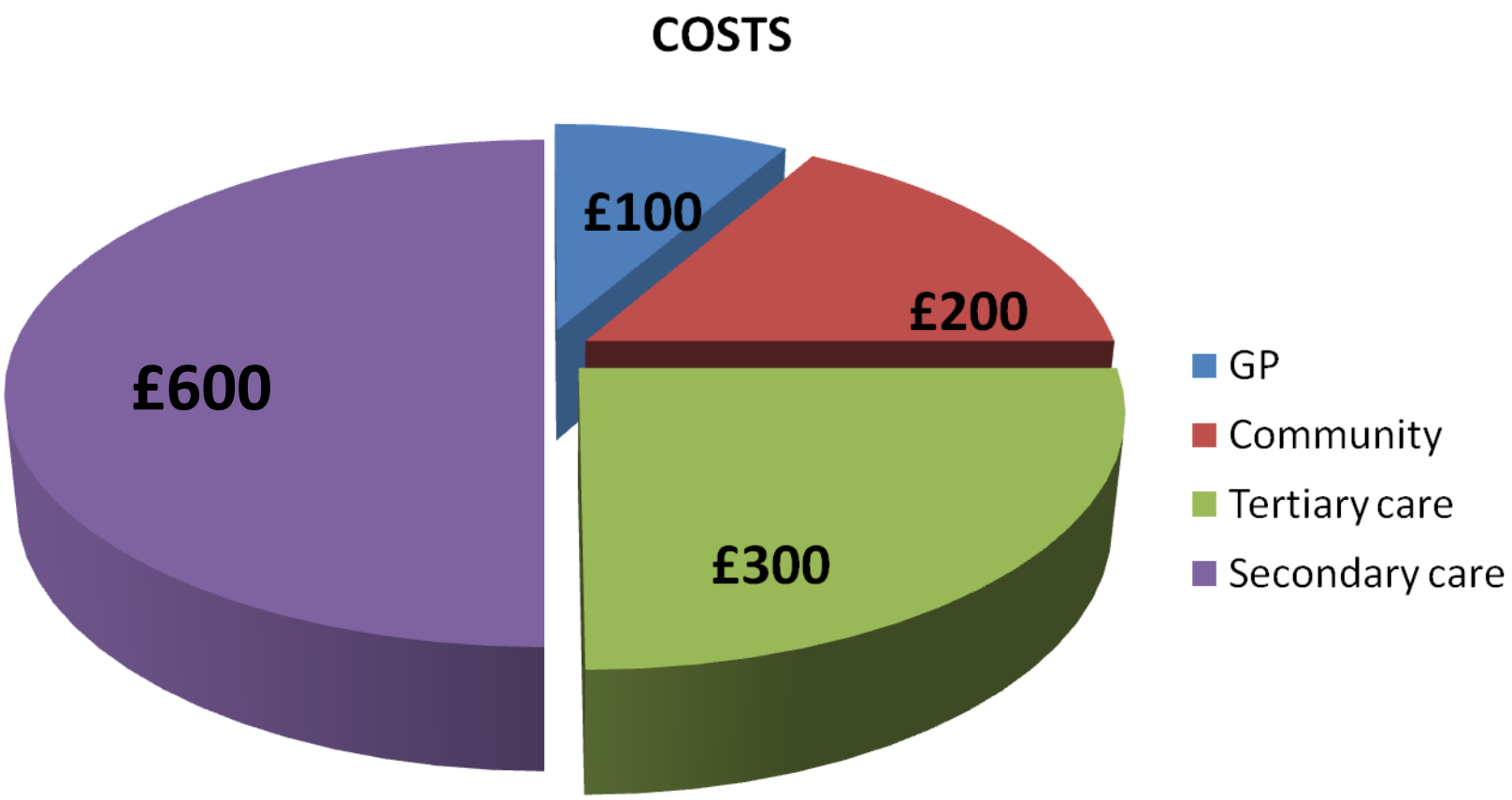
NHS commissioning Board

" National contract for Primary & Secondary Care……multi-disciplinary care …..appropriately trained staff ….. Regular structured education "

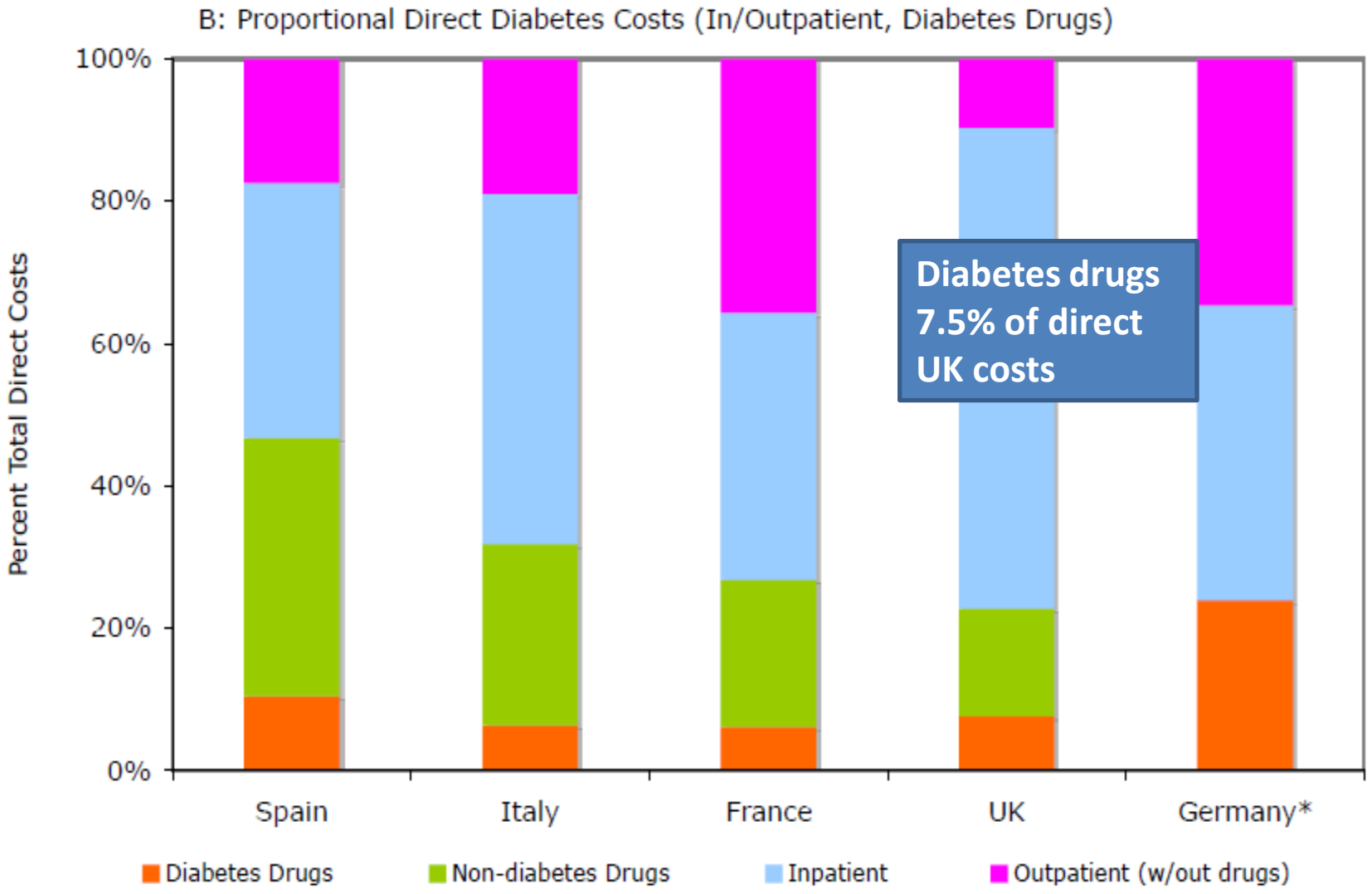
The extent of diabetes



Spend


COSTS
£100
£200
£300
£600
GP
Community
Tertiary care
Secondary care

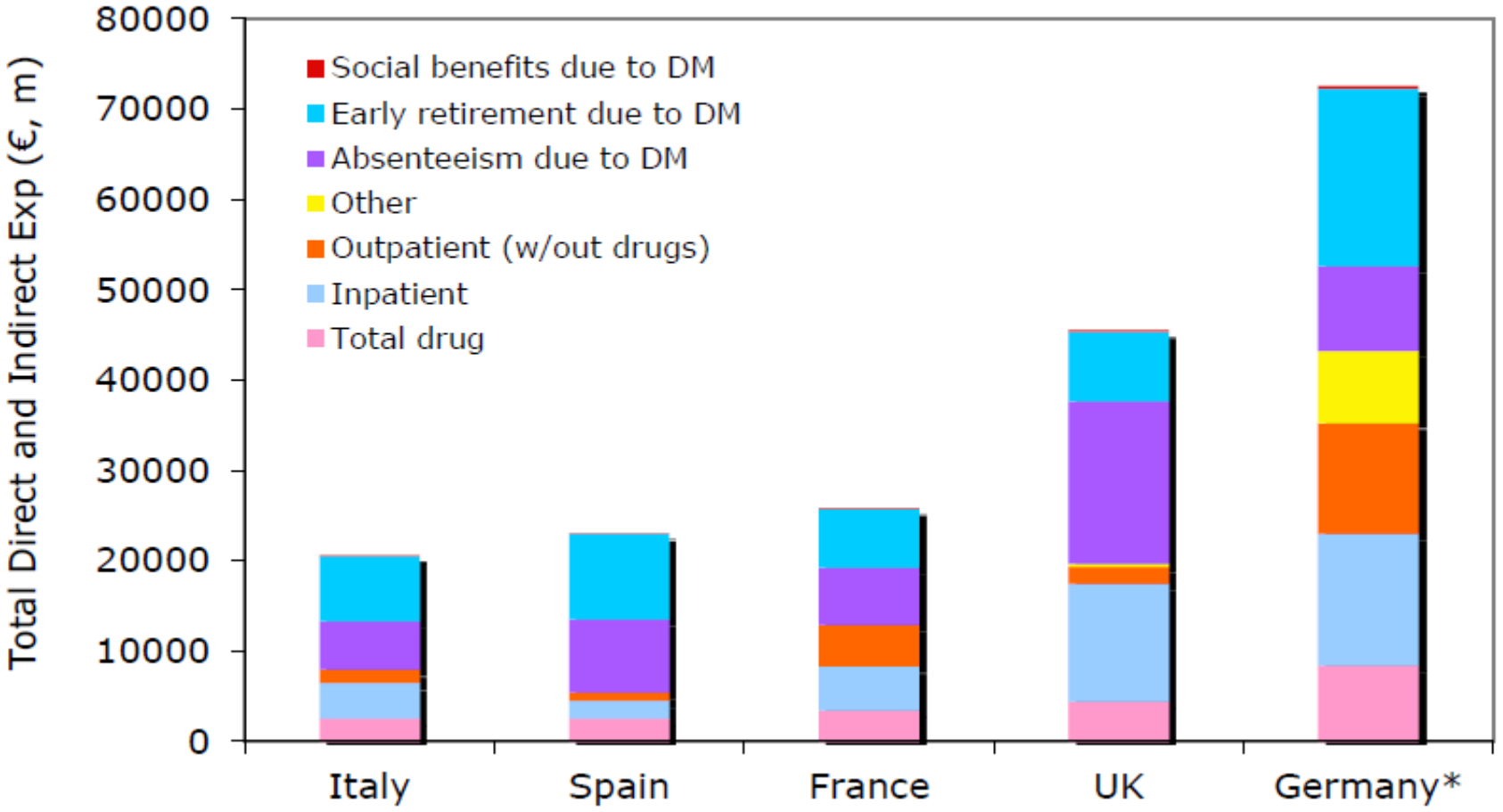
As a proportion of NHS costs



http://www2.lse.ac.uk/LSEHealthAndSocialCare/research/LSEHealth/MTRG/LSEDiabetesReport26Jan2012.pdf

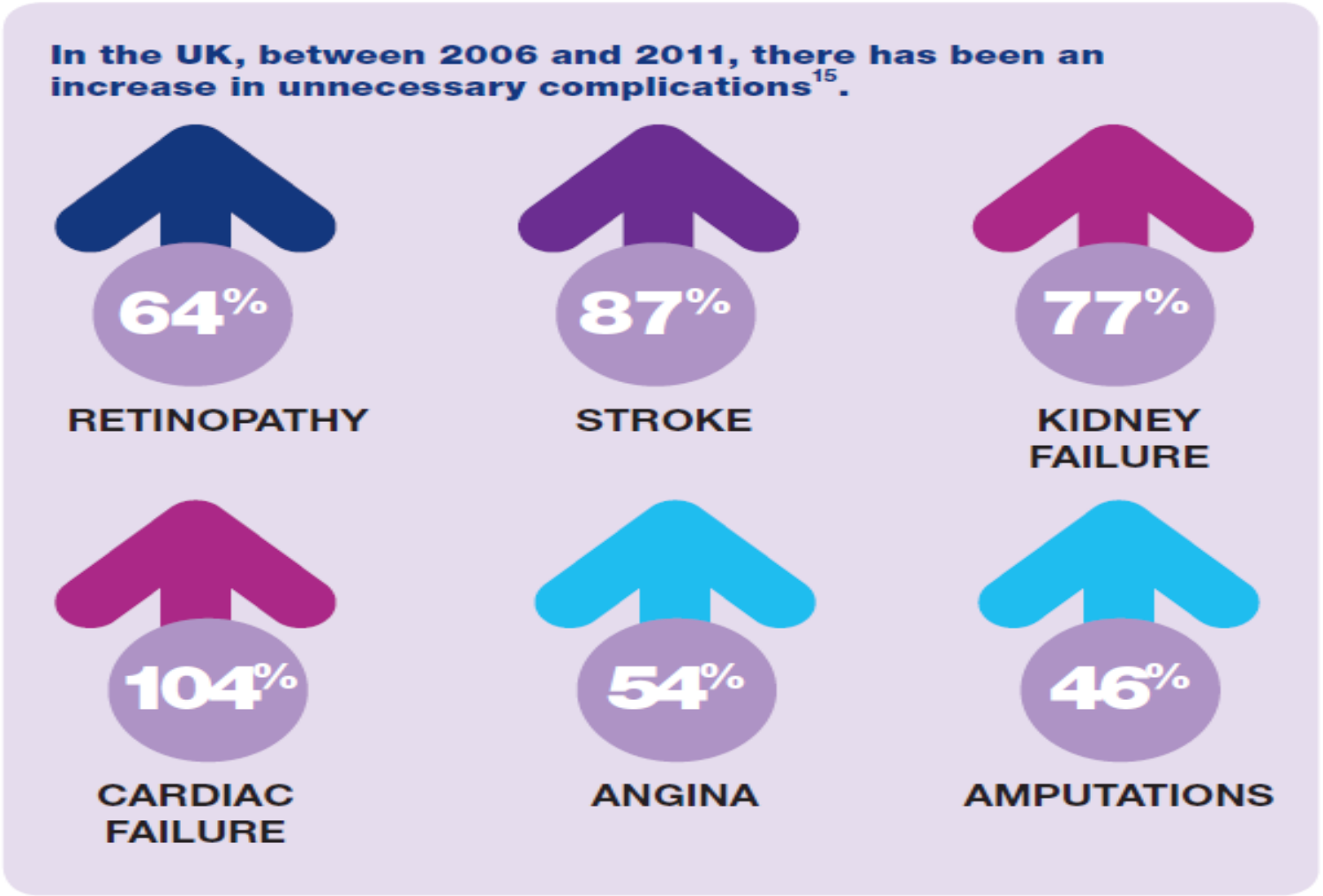
Drugs are the smallest cost – really?

Figure 5.3: Direct and indirect cost burden of diabetes in EU5 (2010 estimates, € million)



http://www2.lse.ac.uk/LSEHealthAndSocialCare/research/LSEHealth/MTRG/LSEDiabetesReport26Jan2012.pdf

Complications cost



Diabetes UK. *State of the Nation 2013 England.* Available at http://www.diabetes.org.uk/Documents/Reports/State-of-the-Nation-2013.pdf Last accessed January 2014

Political Concerns

Population

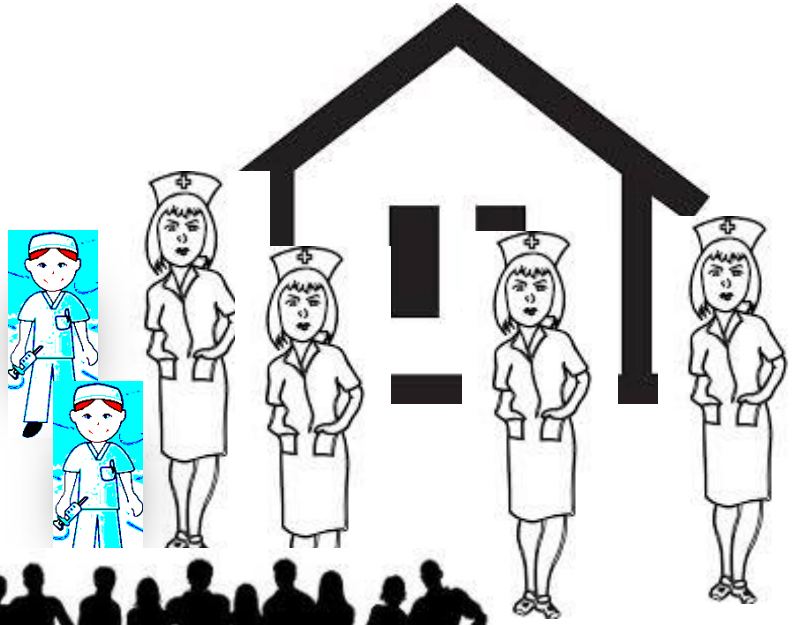
- 2009-10
  - 3.1 million Diabetics
  - 800 000 undiagnosed
- 2020
  - 23% increase
    - 3.8million Diabetics

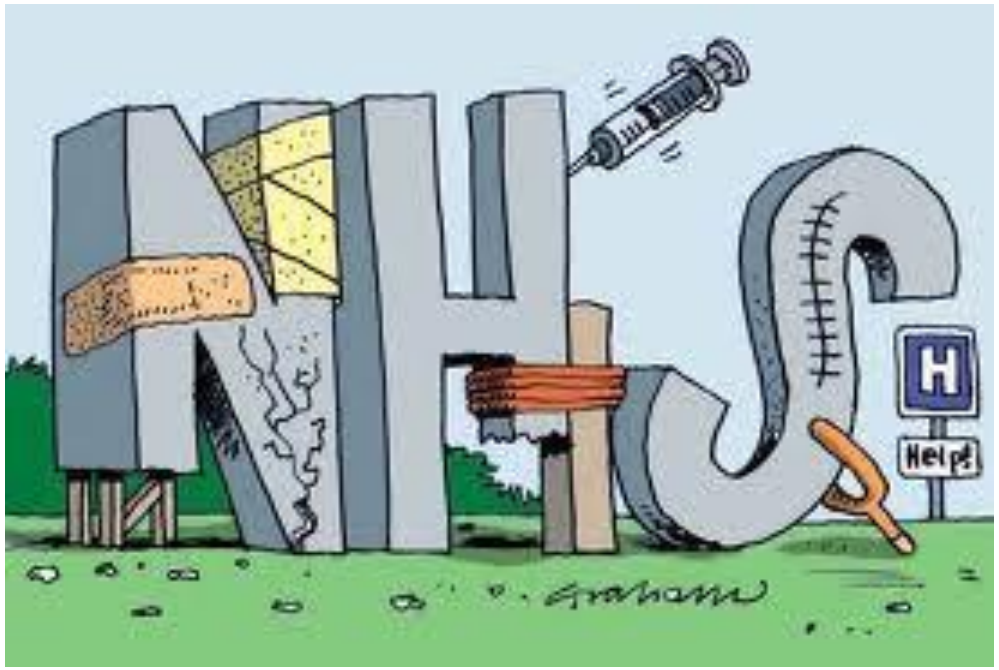
The Cost

- £39 billion on services
- 80% on complications
- 24 000 deaths from avoidable causes

The Problem (Gerry Rayman BMJ editorial September 2012)

- 50% diabetics receive all 9 recommended care processes
- 1 in 5 diabetics achieve recommended care targets
- 24000 diabetes related deaths each year
- Women age 15-34 are 9 times more likely to die compared to women without diabetes
- Wide variation in specialist services
- Wide variation in outcomes
- Prevalence of diabetes is rising
- QOF has improved documentation but little improvement in outcomes
- Payment by results disincentives seeking specialist assessment




H
Help!

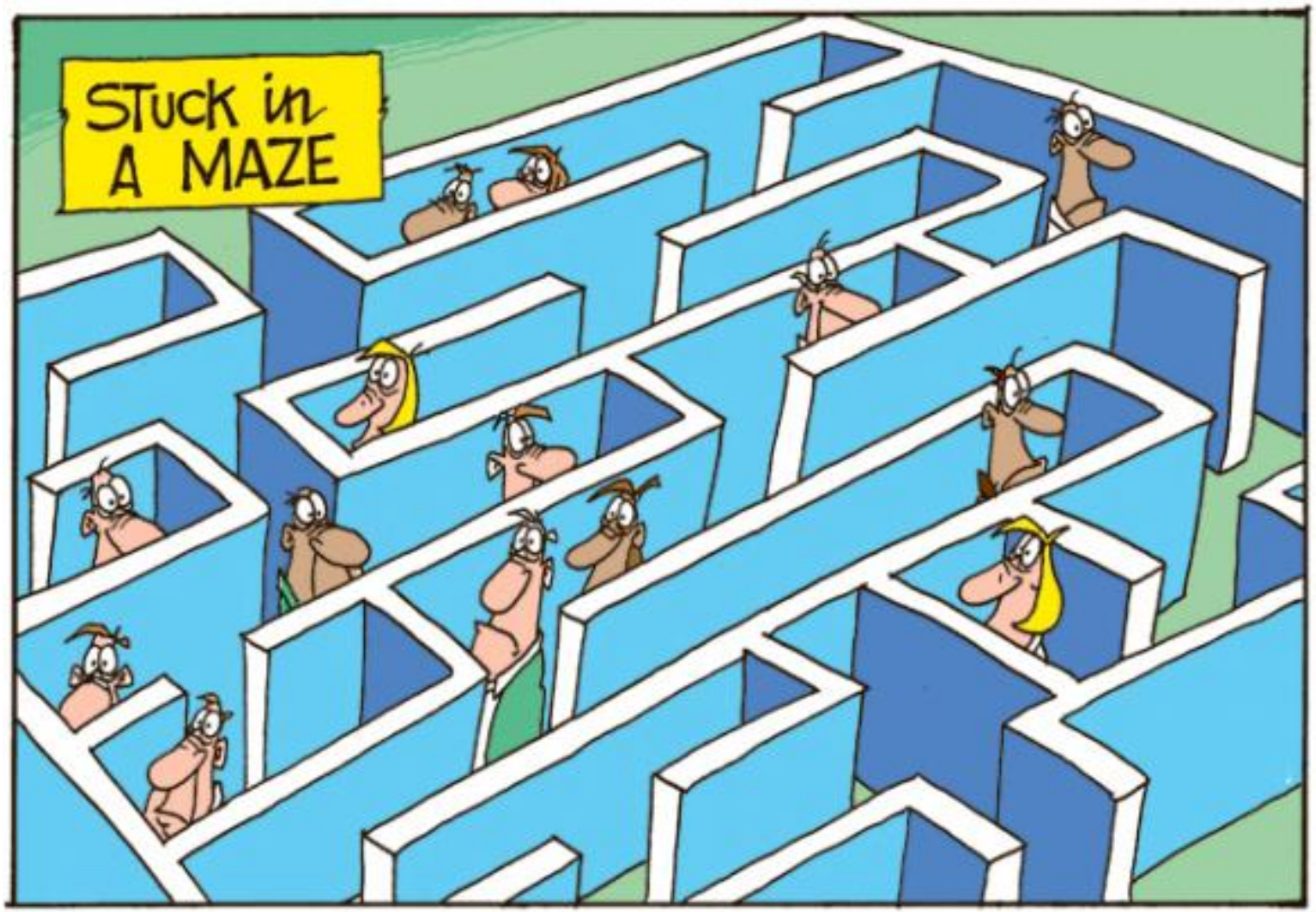
Diabetes

Prevalence
Complications
Obesity
Cost – time / £
Therapies
Demands
targets

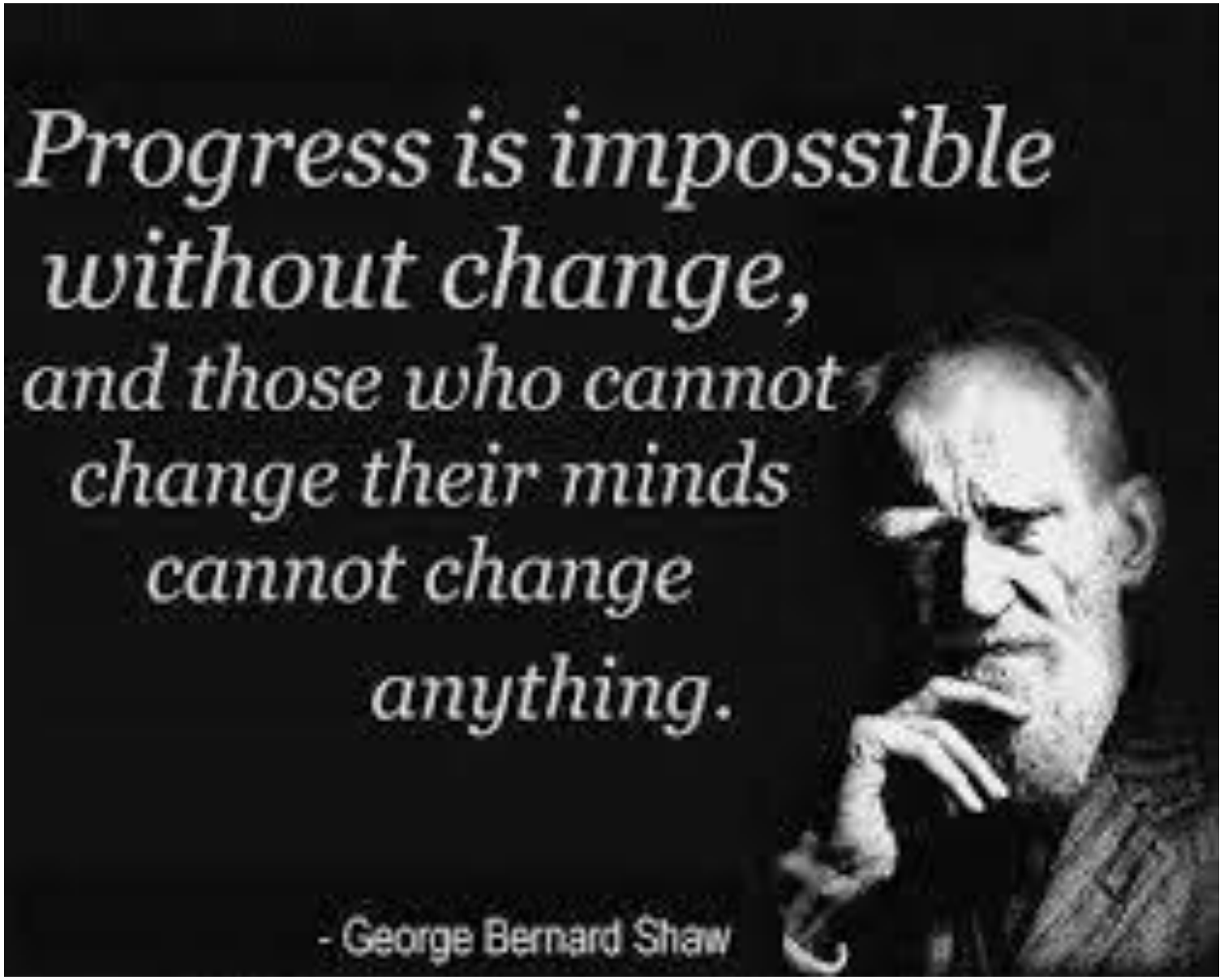
The main clinical priorities and challenges for the local diabetes service

- **Diabetes is only the third health condition, after TB and HIV, to warrant a WHO Directive warning of its inexorable rise**
  - Wales 4.9%[1] and rising – closely linked to social deprivation
  - Life expectancy reduced:[2]
    - Type 1 –20 years Type 2 –10 years
  - 15% all deaths attributed to diabetes[2]
    - 5.2% excess mortality (3–5x higher at middle age)[3]
    - 16% all hospital beds[4]
    - 50% coronary care/vascular beds are diabetics
  - Cost
    - 10% (£500 million) Welsh NHS budget[5]
      - £850 million in 2035 (72% increase) to exceed all other health expenditure in Wales

1. QOF (2013) *QOF database – Wales.* Available at: http://www.gpcontract.co.uk/browse/WAL/ (accessed 12.11.2013)
2. Diabetes UK (2012) Diabetes in the UK 2012. Key statistics on diabetes. Available at: https://www.diabetes.org.uk/Documents/Reports/Diabetes-in-the-UK-2012.pdf (accessed 18.02.2014)
3. Roglic G et al (2005) *Diabetes Care* **28**: 2130–5
4. Audit Commission. (2000) *Testing Times: A review of* London*diabetes services in England and Wales*. : Audit Commission
5. Diabetes UK (2012) *State of the nation 2012 Wales*. Available at: http://www.diabetes.org.uk/Global/Homepage/Wales/State_of_Nation_WALES%20F%20(2).pdf (accessed 18.02.2014)


STUCK in
A MAZE


time for CHANGE

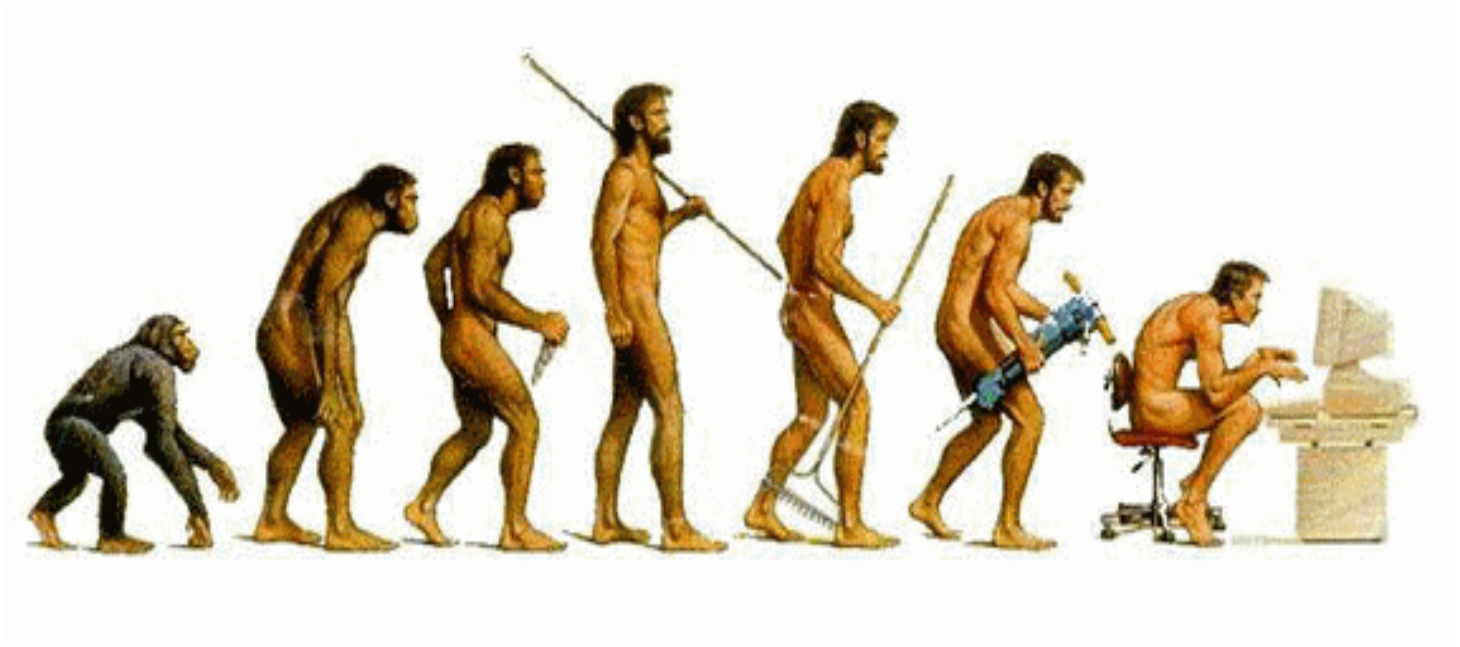

Progress is impossible
without change,
and those who cannot
change their minds
cannot change
anything.
- George Bernard Shaw

The provision of diabetes services is complex

– care is provided by a wide range of professionals,

- General practitioners (GPs) and other primary healthcare professionals
- Specialist diabetes teams,
- People with diabetes and their carers.

"The achievement of good
outcomes for people with diabetes is dependent on the provision of well-organised and
coordinated diabetes services that draw on the knowledge and skills of health and social care
professionals working across primary and secondary care."



Primary Care has a pivotal role to play in ensuring that all people with diabetes receive effective diabetes care

1. -Recognised by the inclusion of clinical indicators for diabetes in the Quality and Outcomes Framework, a key element of the new contract for the provision of General Medical Services

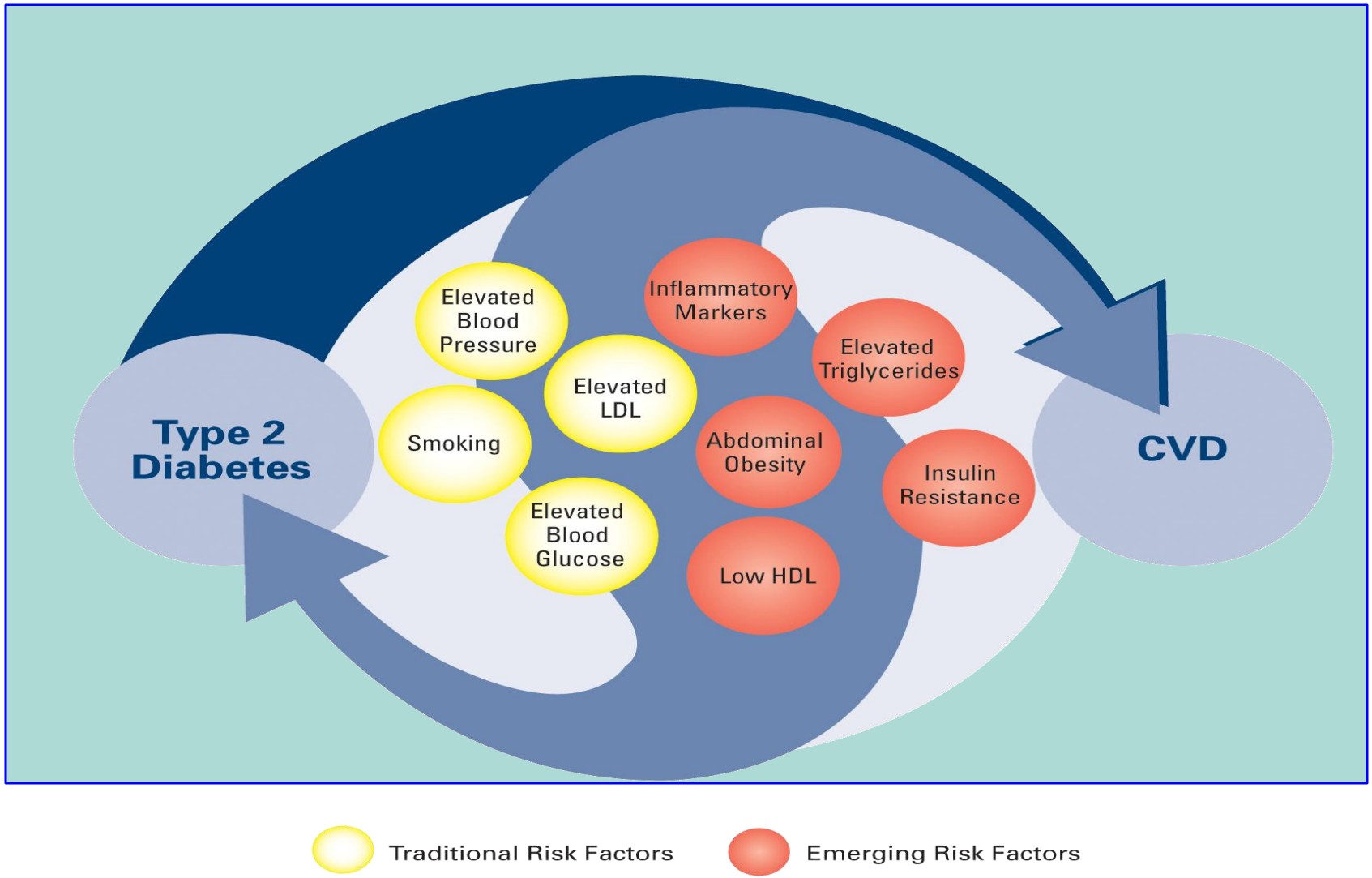
2. - Ensuring that all people with diabetes registered on their practice lists are receiving planned diabetes care

3. - It is usually the GP who makes

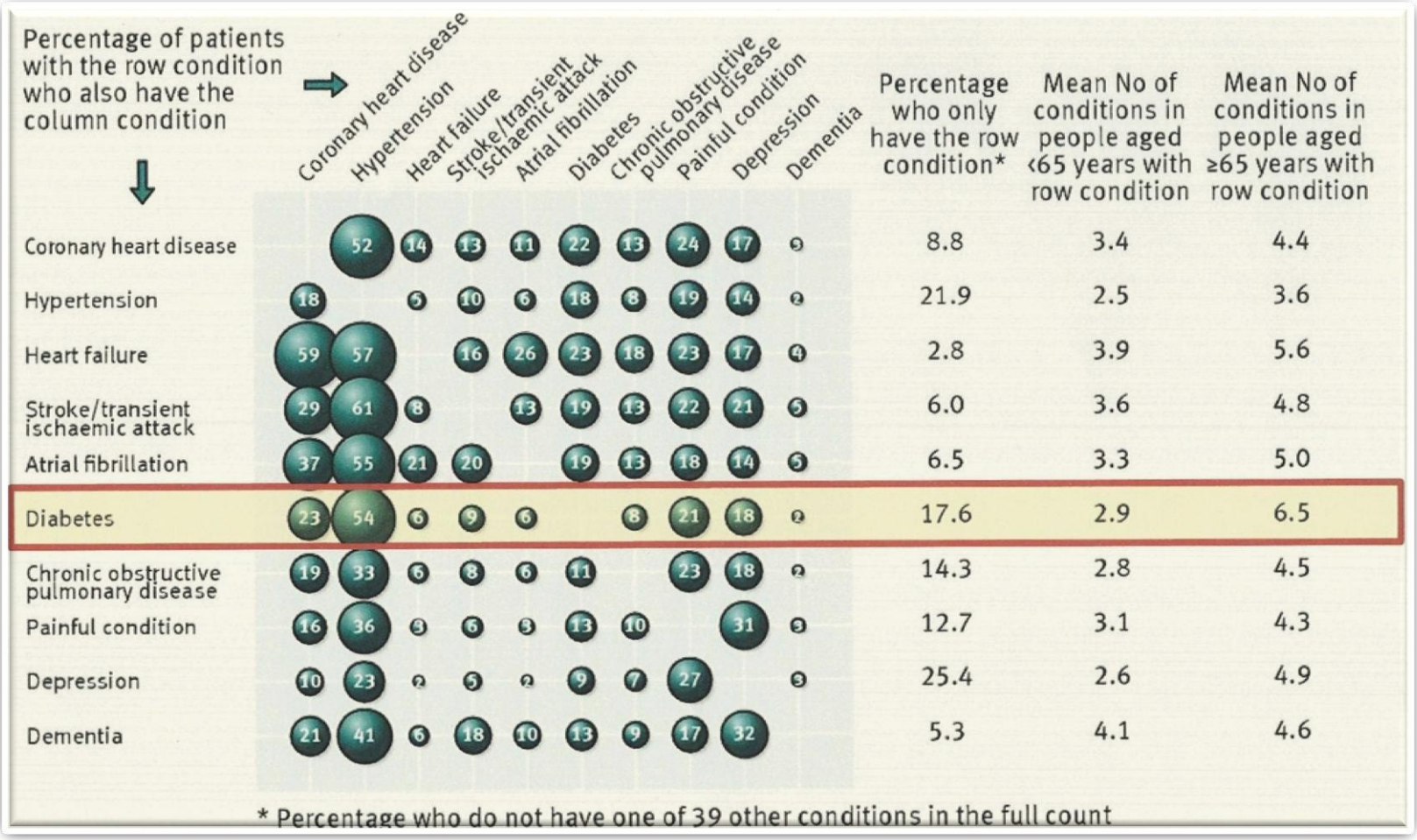
- •the initial diagnosis of diabetes and
- • it is usually the GP who is responsible for agreeing each element of their diabetes care and who will provide this.

Increasingly, the routine follow up of people with diabetes is also undertaken within primary Care.

Clustering of Cardio metabolic Risk Factors



Co-morbidities and diabetes



Percentage of patients with the row condition who also have the column condition	Coronary heart disease	Hypertension	Heart failure	Stroke/transient ischaemic attack	Atrial fibrillation	Diabetes	Chronic obstructive pulmonary disease	Painful condition	Depression	Dementia	Percentage who only have the row condition*	Mean No of conditions in people aged <65 years with row condition	Mean No of conditions in people aged ≥65 years with row condition
Coronary heart disease		52	14	13	11	22	13	24	17	5	8.8	3.4	4.4
Hypertension	18		5	10	6	18	8	19	14	2	21.9	2.5	3.6
Heart failure	59	57		16	26	23	18	23	17	4	2.8	3.9	5.6
Stroke/transient ischaemic attack	29	61	8		13	19	13	22	21	5	6.0	3.6	4.8
Atrial fibrillation	37	55	21	20		19	13	18	14	5	6.5	3.3	5.0
Diabetes	23	54	6	9	6		8	21	18	2	17.6	2.9	6.5
Chronic obstructive pulmonary disease	19	33	6	8	6	11		23	18	2	14.3	2.8	4.5
Painful condition	16	36	5	6	5	13	10		31	5	12.7	3.1	4.3
Depression	10	23	2	5	2	9	7	27		5	25.4	2.6	4.9
Dementia	21	41	6	18	10	13	9	17	32		5.3	4.1	4.6

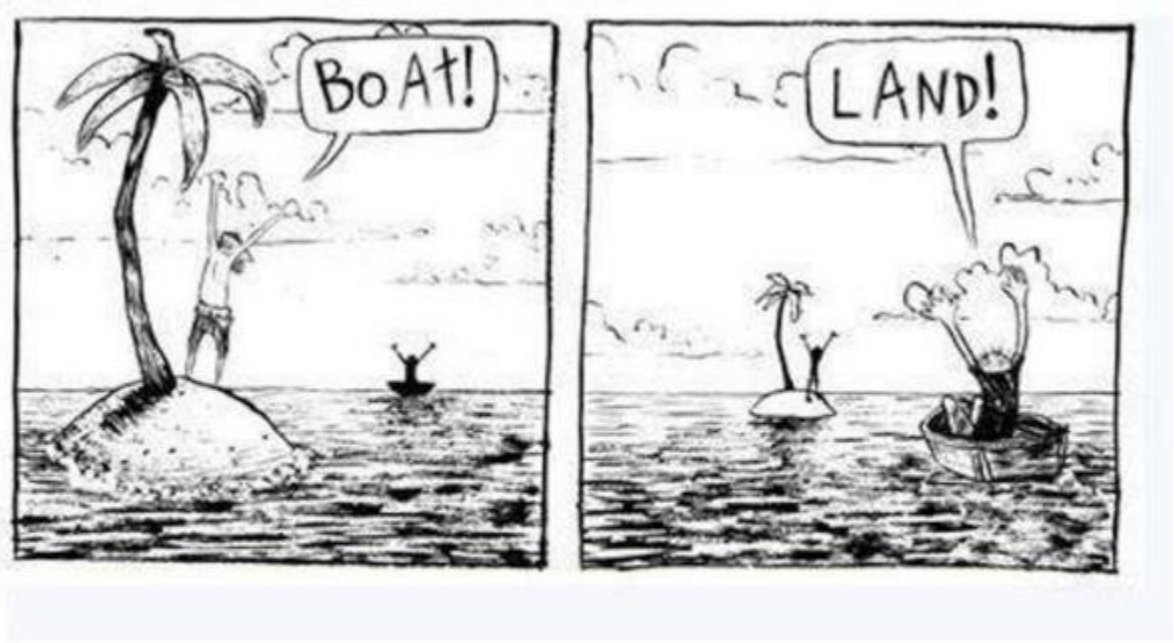
* Percentage who do not have one of 39 other conditions in the full count

Guthrie B.et al. BMJ 2012:345:e6341

Co-morbidities and Diabetes

- £9.8billion
  - 80% on complications
- £780million drugs
- 20% bed occupancy

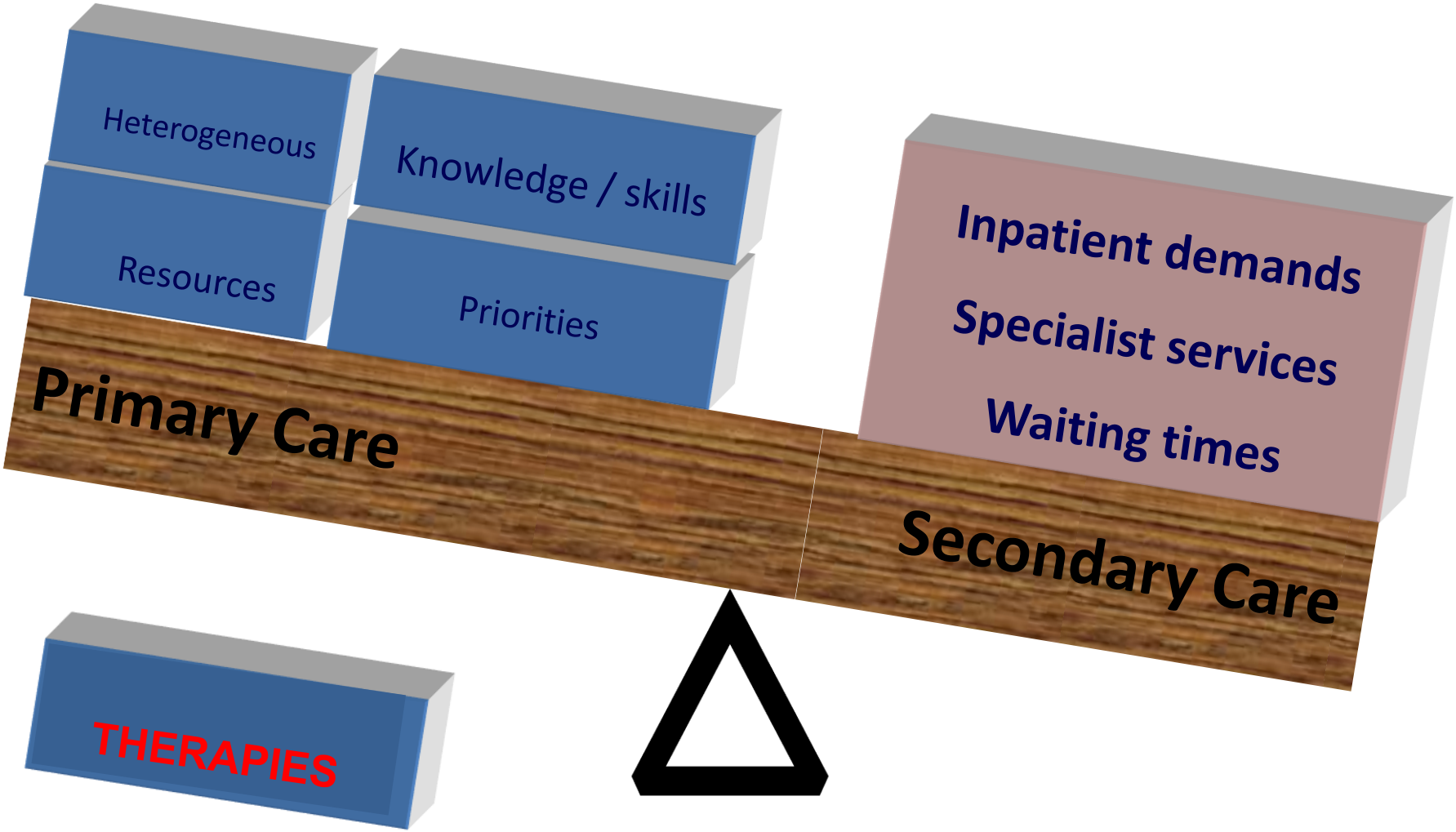
	<65 years	>65 years
Diabetes	2.9	6.5

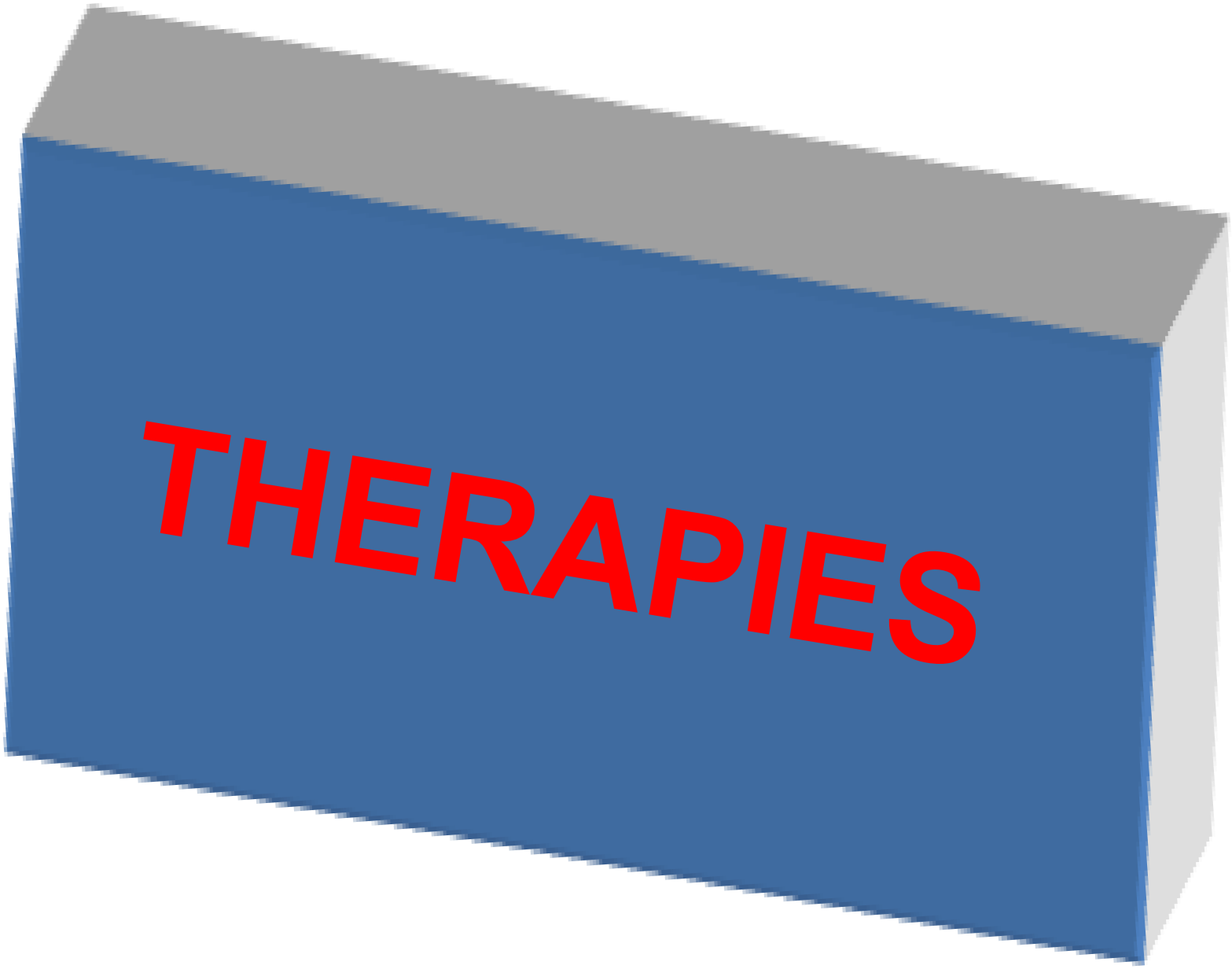


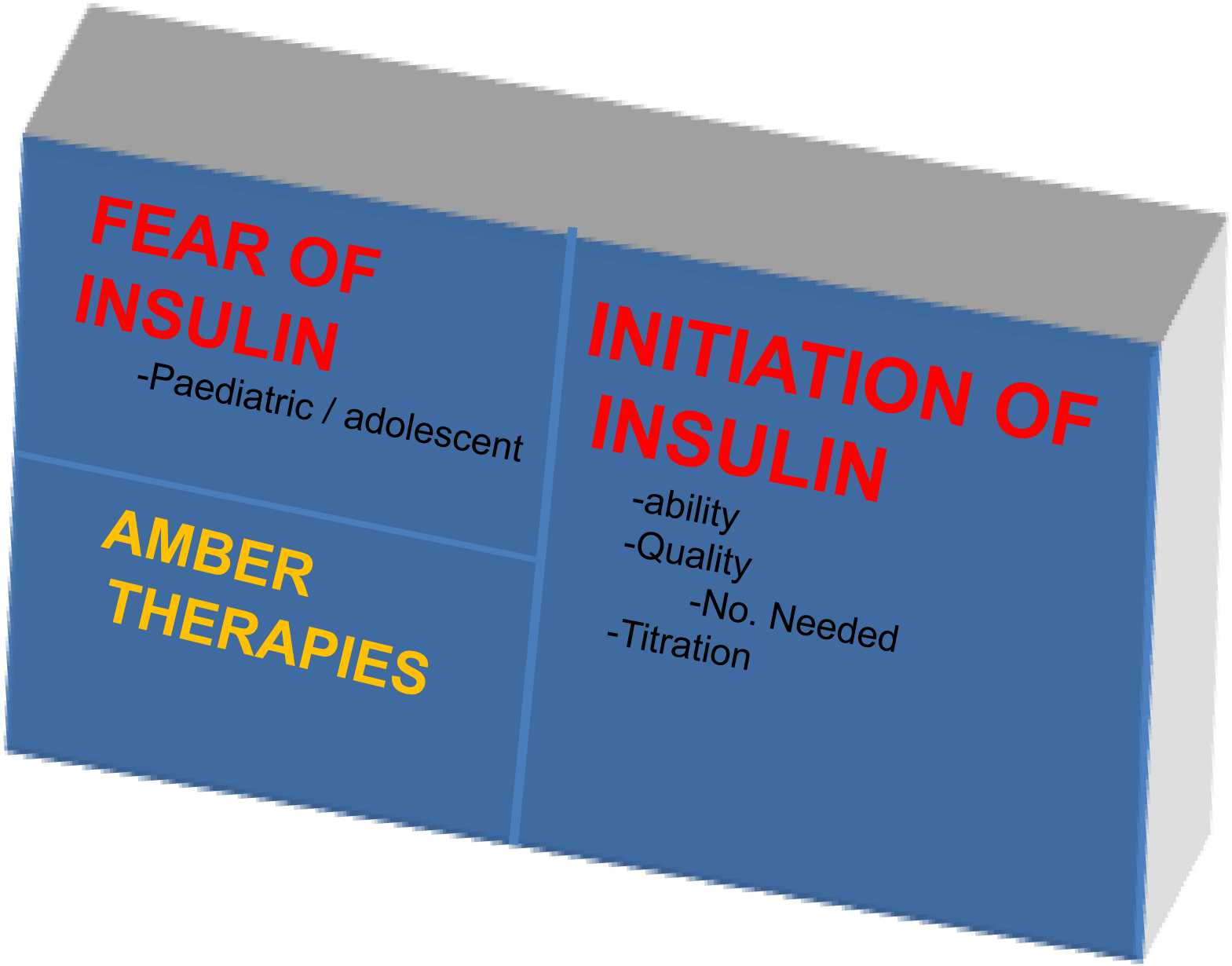
Perspective...

Sometimes we do not appreciate the other's perspective .

The care balance of diabetes




THERAPIES


FEAR OF INSULIN
-Paediatric / adolescent
AMBER THERAPIES
INITIATION OF INSULIN
-ability
-Quality
-No. Needed
-Titration

Primary care as the custodian of Diabetes

- 3million cases and increasing
- Primary care has vital role in coordinating and delivering evidence based care
  - Prevention / detection / management
- Quality Improvement and Audit in 1990's has increased the adoption of evidence based practice in Primary care
  - Helped with adoption of IT systems
  - Good evidence based data (UKPDS)
- QOF and Practice Education Programmes have helped to deliver significant improvements

Primary Care Pathway

- **S**
  - **Screen**
  - **Support**
  - **Select**
- **E**
  - **Education**
    - Initial - BOOKLET
    - First steps
    - X-Pert
    - Ongoing
- **L**
  - **Leadership**
    - Care Plan
    - Complication screening
    - Appropriate actions
      - Therapies
      - Referral
- **L**
  - **Local**
    - Close contact with patient
    - Call and recall systems
    - Ownership in Primary care

SPECIALIST CARE

- children and young people with diabetes
- Pump patients
- women considering pregnancy or already pregnant
- specialist advice is required
  - -management of metabolic control,
  - -cardiovascular risk factors or
  - -diabetic complications
- complex psychological problems,

Welcome

You have recently been diagnosed with Type 2 diabetes. This leaflet is designed to give you some initial advice until you are able to attend a structured education programme. It will help you start to manage your diabetes, whilst continuing to live a full and active life.

The aim of this leaflet is to help you to:

- ✓ Make changes to your lifestyle to help control your diabetes
- ✓ Balance the demands of diabetes care in your daily life
- ✓ Involve your family / those close to you in your care

Contents

How much do you now know about diabetes?

Answer true or false to the following;

True or False?

1. People with diabetes can be fit and well
2. People with diabetes cannot eat sugar and need a special diet
3. If you are overweight, losing weight can help control diabetes
4. People with diabetes will have to take more time off work due to illness
5. Exercise can improve your diabetes control
6. Unless you need insulin, your diabetes is not serious
7. If you feel well there is no need to see the doctor
8. You will need to test your blood glucose (sugar) every day
9. You cannot pass diabetes onto your children
10. There is support available for people with diabetes

Primary Care Pathway

- **S**
  - **Screen**
  - **Support**
  - **Select**
- **E**
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SPECIALIST CARE

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- complex psychological problems,


"When you change
the way you look at
things..The things
you look at change"

Hospital vs. primary Care 1980's

Hayes TM, Harries J. Cardiff	Singh B, et al Wolverhampton
GP vs. OPD	Structured GP mini clinic vs. OPD
200 patients , 100 discharged to GP	Matched pairs (n= 4222)
5 year follow up	
HbA1c 9.5% (Hospital) 10.5% (GP)	9.6 % (Hospital) 9.7% (GP)
Higher 5 year mortality in GP	10.6% (Hospital) 10.8% (GP)
Only 13% seen annually by GP	
HOSPITAL CARE SUPERIOR	NO DIFFERENCE
British Medical Journal 1984	

Hospital vs. primary Care 1990's

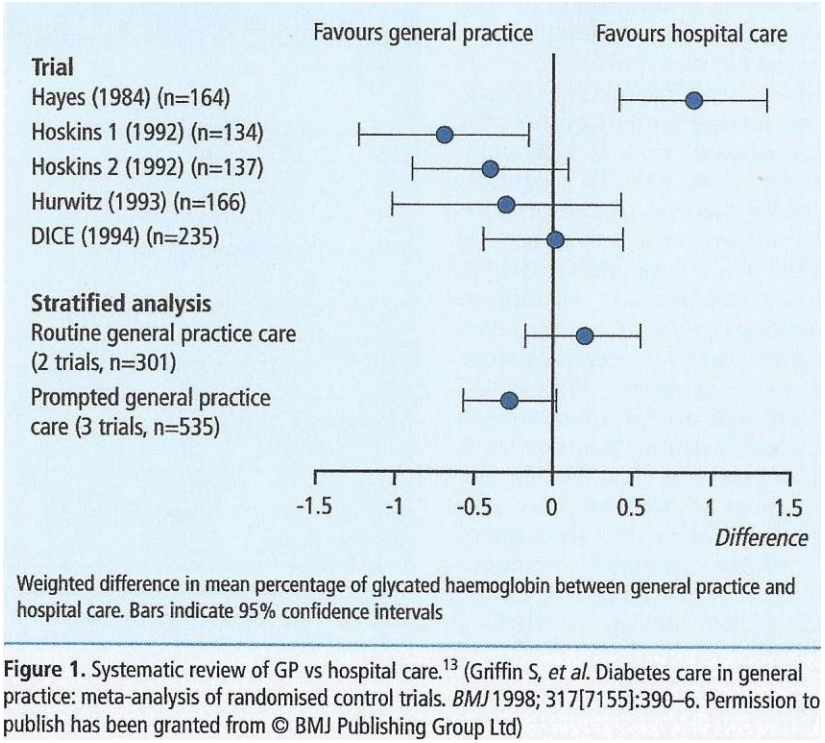


Figure 1. Systematic review of GP vs hospital care.[13] (Griffin S, *et al.* Diabetes care in general practice: meta-analysis of randomised control trials. *BMJ* 1998; 317[7155]:390–6. Permission to publish has been granted from © BMJ Publishing Group Ltd)

- Clinical Audit & Quality Improvement
  - Computerisation
  - Clinical audit tools
  - UKPDS study trials
  - NSF for diabetes

Hospital vs. primary Care 2000's

	1999 Multi-practice audits	2009 National Diabetes Audit
Retinal screen	67.5%	78.9%
Foot check	67.7%	85.2%
HbA1c	72.5%	92.6%
Cholesterol	37.5%	92.4%

Khunti K et al Fam. Pract. 1999;16(1):54-9
National Diabetes Audit 13 June 2012

- 2001 NSF for diabetes
  - Patient involvement
  - Evidence based practice
  - Invest in services
    - Retinal screening
    - Diabetes networks
    - Diabetes leads
- QOF
  - Increased assessment
  - Cardiovascular risk management

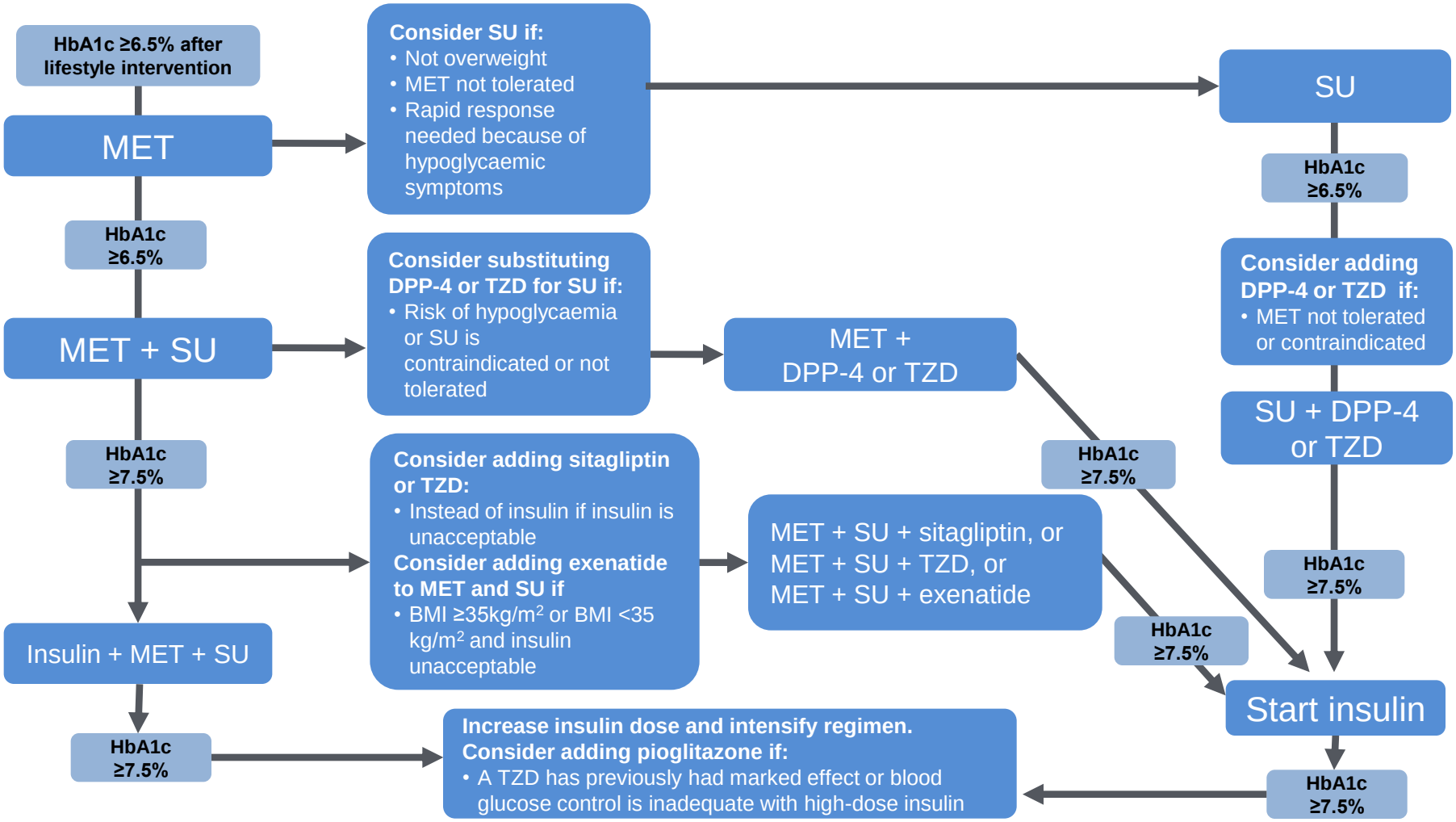
Progress in Primary Care – The ADDITION STUDY

Variable	Routine care (general practice)				Intensive treatment				Change from baseline to follow-up β/odds ratio (95% CI)
	Baseline (n=1379)		Follow up (n=1285)		Baseline (n=1678)		Follow-up (n=1574)		
	Total with data available (%)	Value	Total with data available (%)	Value	Total with data available (%)	Value	Total with data available (%)	Value	
HbA_{1c} (%); mean (SD)	1298 (94.1)	7.0 (1.5)	1226 (95.4)	6.7 (0.95)	1591 (94.8)	7.0 (1.6)	1513 (96.1)	6.6 (0.95)	-0.08 (-0.14 to -0.02)
Systolic blood pressure (mmHg); mean (SD)	1346 (97.6)	149.8 (21.3)	1205 (93.8)	138.1 (17.6)	1617 (96.4)	148.5 (22.1)	1517 (96.4)	134.8 (16.8)	-2.86 (-4.51 to -1.20)
Diastolic blood pressure (mmHg); mean (SD)	2346 (97.6)	86.5 (11.3)	1203 (93.6)	80.7 (10.8)	1618 (96.4)	86.1 (11.1)	1517 (96.4)	79.5 (10.7)	-1.44 (-2.30 to -0.58)
Total cholesterol (mmol/L); mean (SD)	1300 (96·3)	5.6 (1.2)	1226 (95.4)	4.4 (0.9)	1593 (94.9)	5.5 (1.1)	1523 (96.8)	4.2 (0.9)	-0.27 (-0.34 to -0.19)

Table 3. Effect of early intensive multifactorial therapy on 5-year cardiovascular outcomes in individuals with type 2 diabetes detected by screening (ADDITION-Europe): a cluster randomised trial.[25] (Griffin SJ, *et al. Lancet* 2011;378(9786):156–67.

- Large multicentre intervention trial for cardiovascular risk factors and glucose control in new Type 2 diabetics
- ***"Routine management in Primary care is comparable to intensive Hospital-Based care"***

National Institute for Health and Clinical Excellence (NICE): T2D treatment algorithm[1]

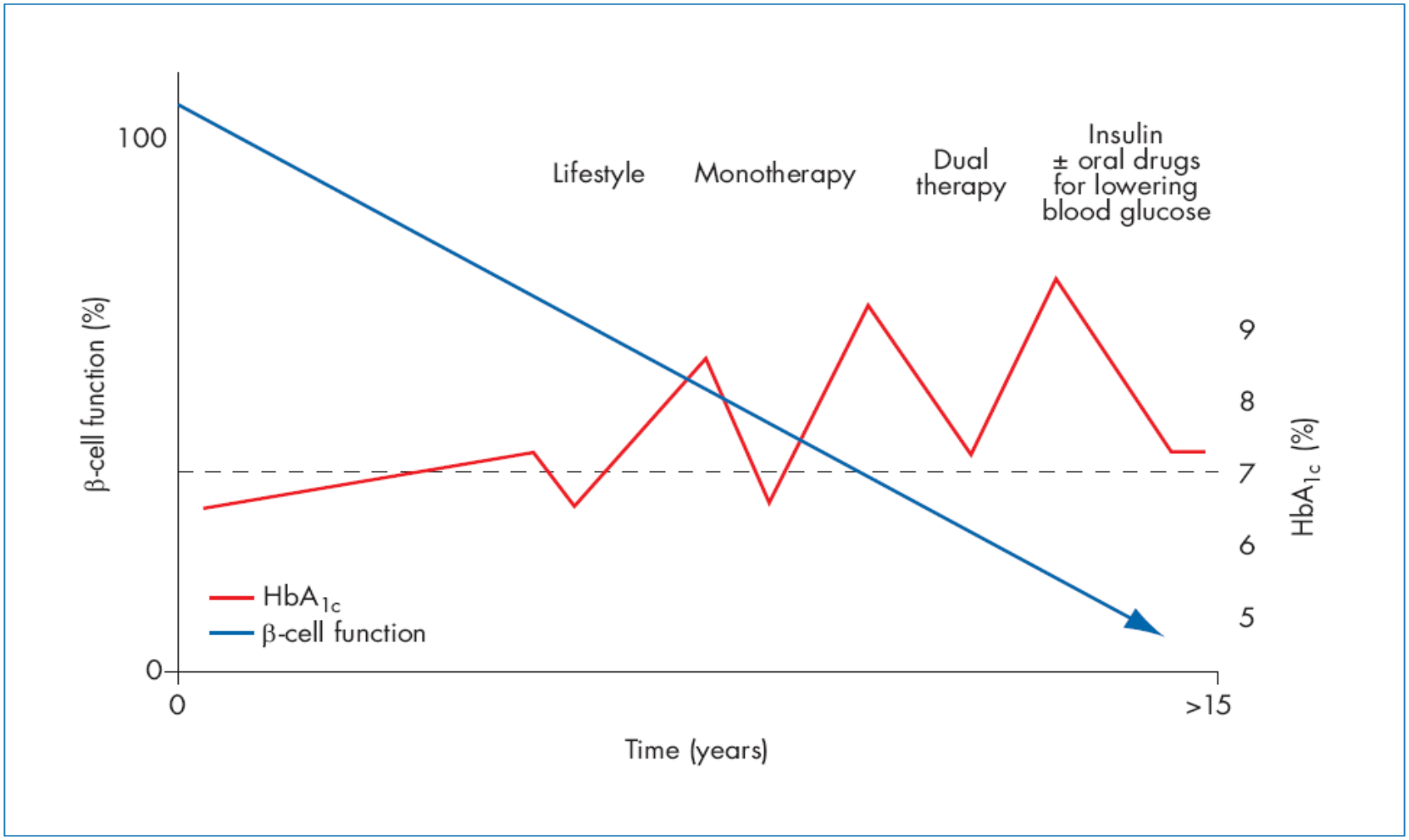


MET = metformin, SU = sulphonylureas, TZD = thiazolidinedione, DPP-4= dipeptidyl peptidase-4 inhibitor

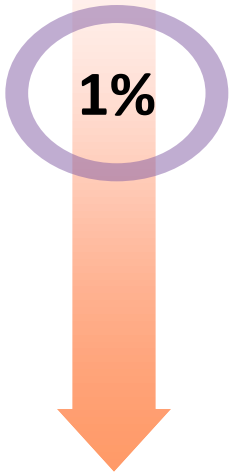
1. Adapted from: National Institute for Health and Clinical Excellence. Clinical Guideline 87. Type 2 diabetes - newer agents (a partial update of CG66): quick reference guide.

Sadly,
SOME TIMES THE PATIENTS TAKE CONTROL..

The natural course of HbA_{1c}



Meta-Analysis: Glycosylated Haemoglobin and Cardiovascular Disease in Diabetes mellitus

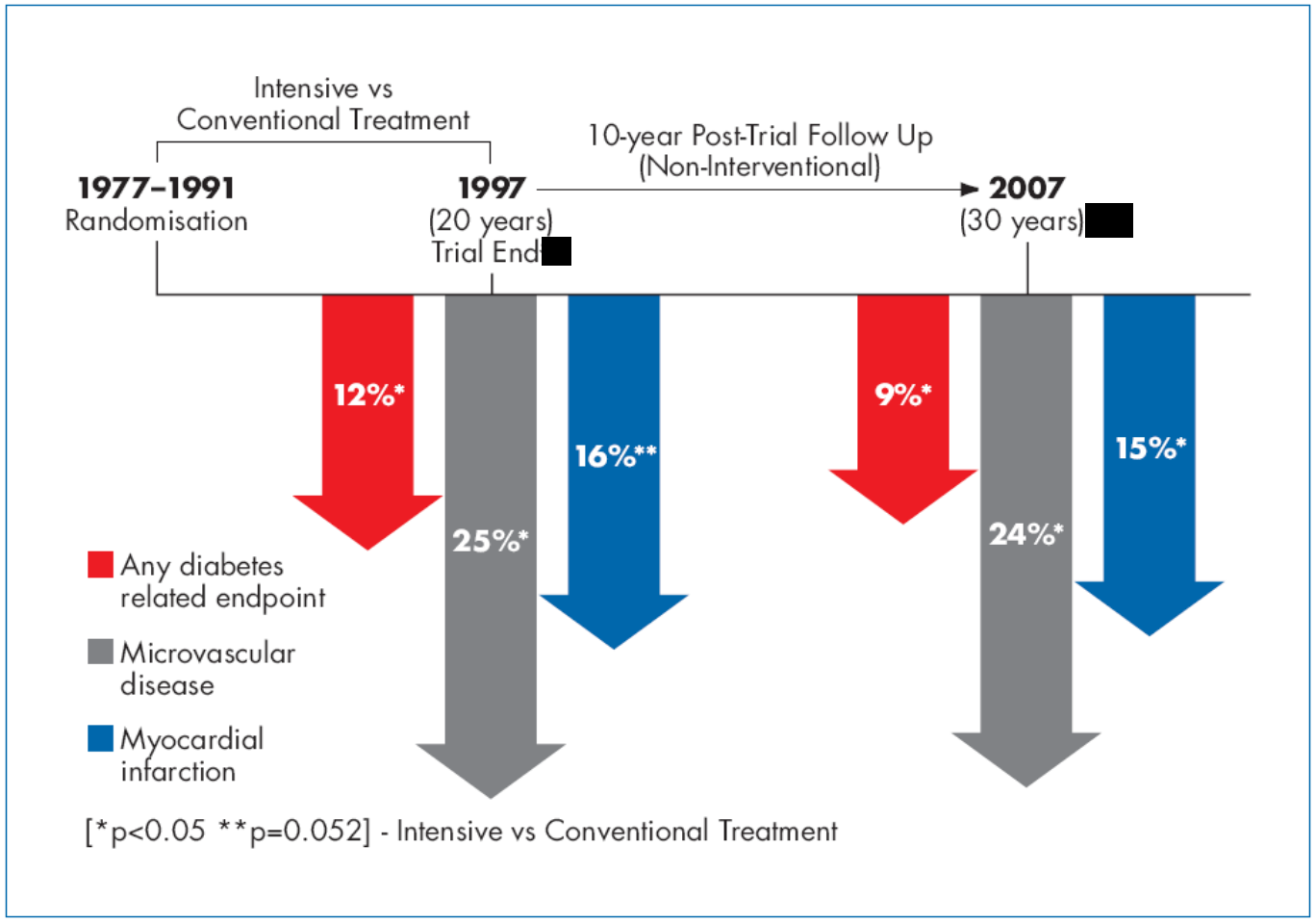


	Reduced Risk*	Number of patients	Number of studies
Cardiovascular disease	-18%	7435	10
Coronary heart disease	-13%	6684	6
Fatal coronary heart disease	-16%	3042	5
Stroke	-17%	5962	3
Peripheral arterial disease	-28%	3748	3

*p<0.0001

Selvin et al. Ann. Intern. Med. 2004;141:421

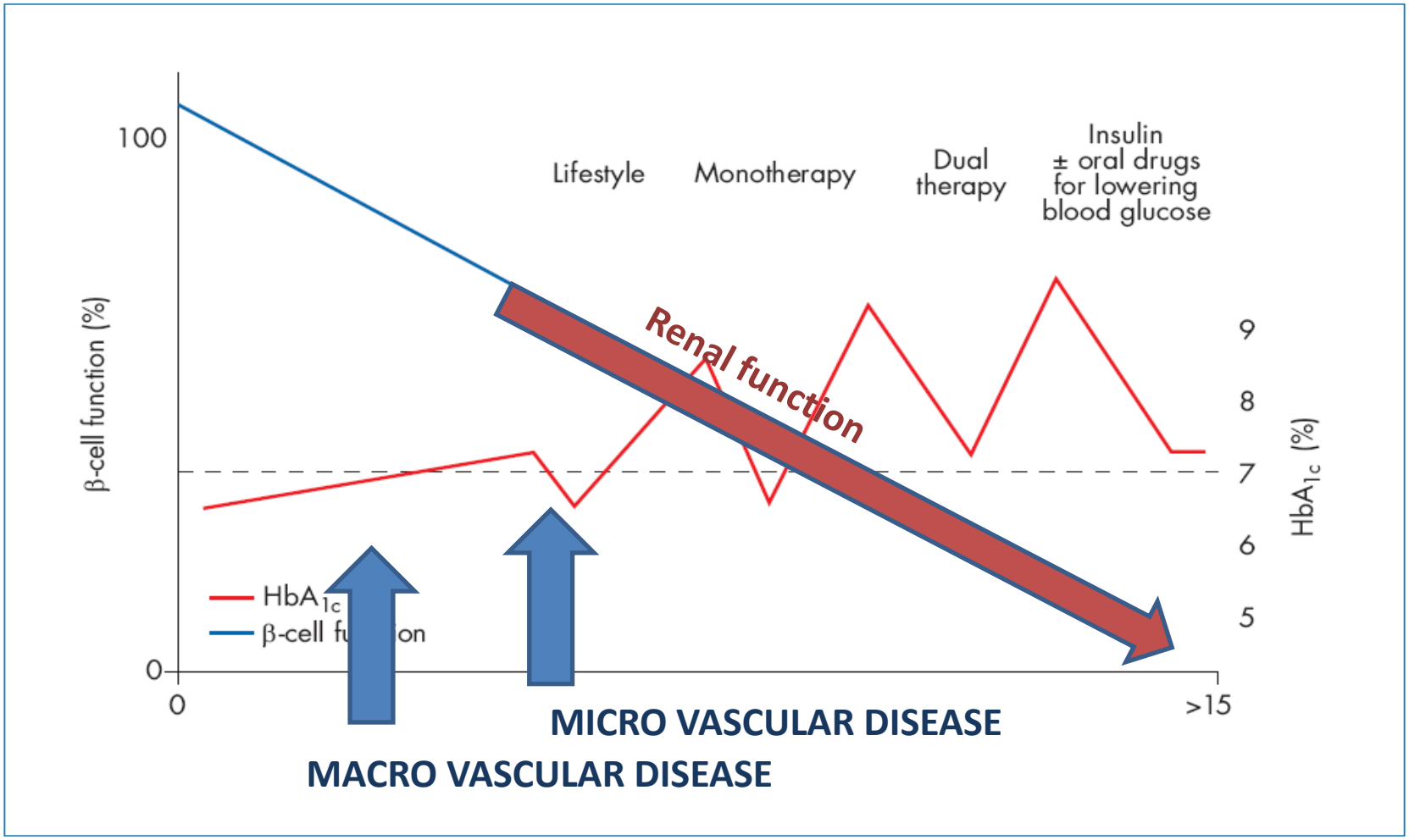
Welcome to the legacy effect



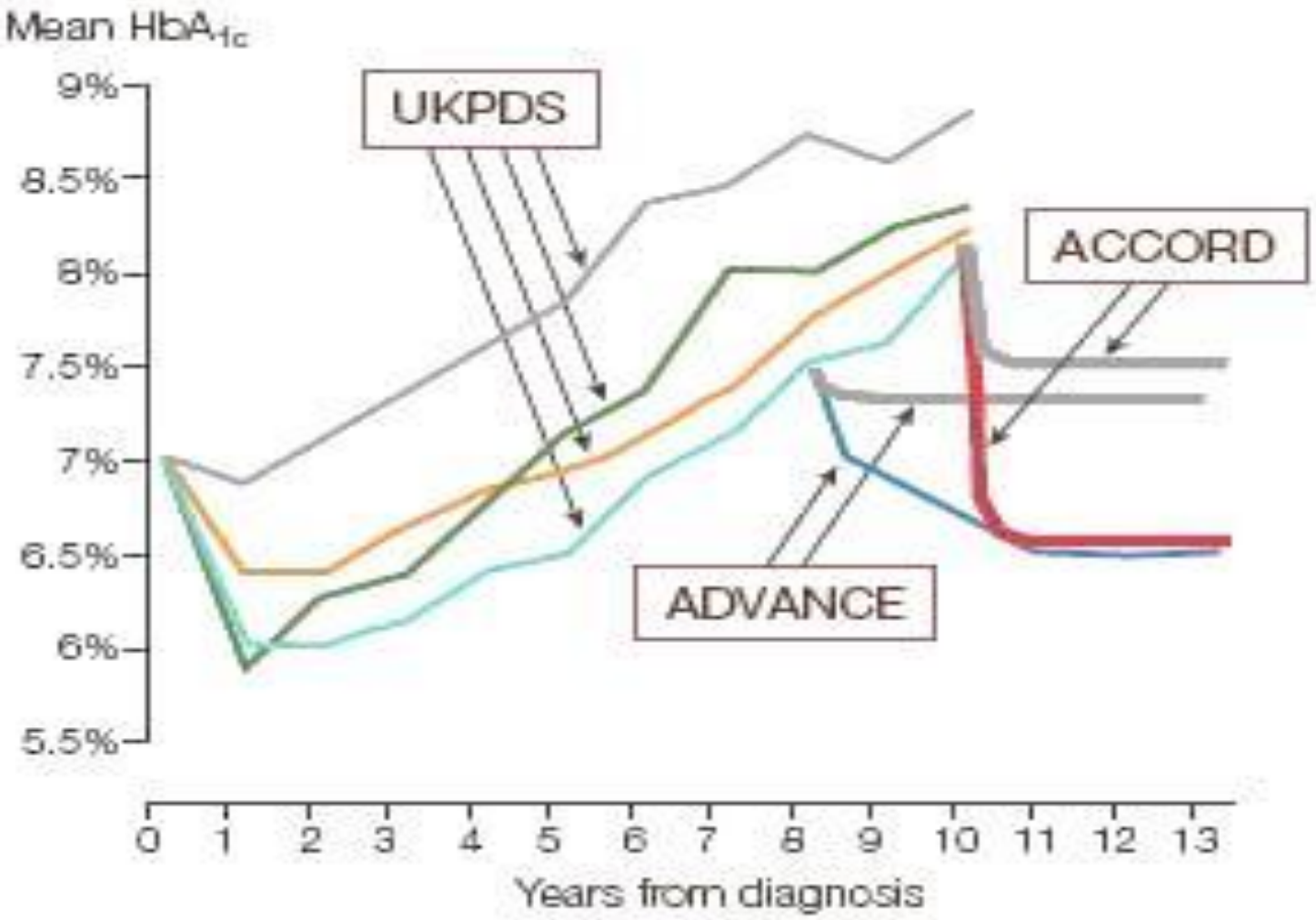
1 Adapted from Holmann RR at al UKPDS 80 NEJM 2008 359(15)1577-1589

2 Adapted from Unnikrishnan AG et al UKPDS 33.Lancet 1998 352-837

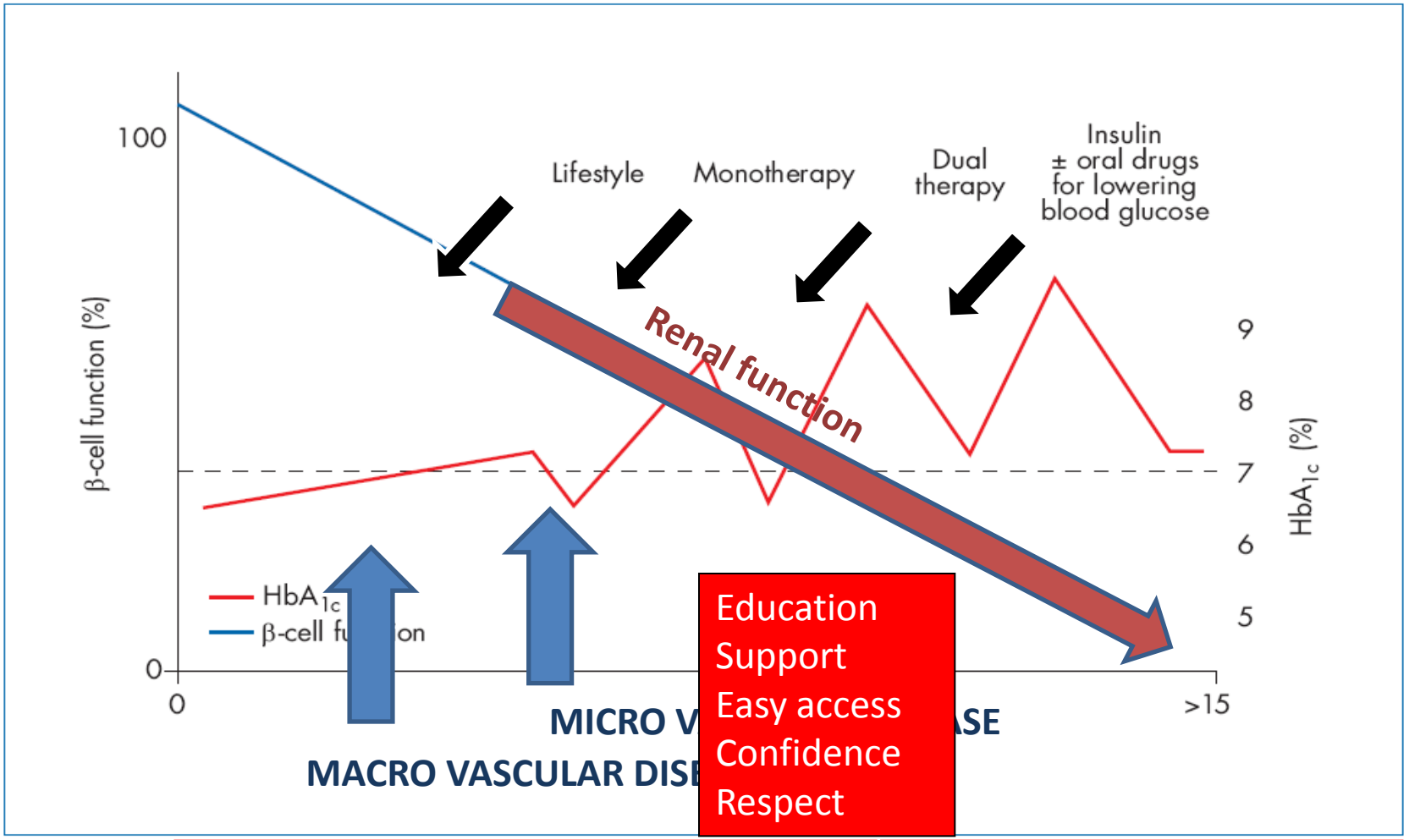
The natural course of HbA_{1c}



PRIMARY CARE → SECONDARY CARE


Mean HbA1c
9%
8.5%
8%
7.5%
7%
6.5%
6%
5.5%
UKPDS
ACCORD
ADVANCE
0 1 2 3 4 5 6 7 8 9 10 11 12 13
Years from diagnosis

Changing the course of HbA_{1c}



Primary Care as the Custodian

Lifestyle

Type 2 diabetes can be prevented or delayed by
maintaining a healthy weight and increasing physical activity levels
–In view of the high risk of cardiovascular disease, the careful management of other cardiovascular risk factors, including smoking, physical inactivity and especially hypertension and dyslipidaemia, is also essential.

Meticulous metabolic

control can prevent or delay the onset of the complications of diabetes.

Complications

can also be greatly reduced if they are detected early and appropriately managed.

Surveillance

for and early diagnosis of the complications of diabetes are also important.
Early diagnosis and treatment can
•reduce their likelihood of developing long-term complications
• the costs associated with diabetes.

Key elements of **Effective Primary Diabetes Care** :

- **PRACTICE-BASED REGISTERS** of people at increased risk of **developing diabetes** to facilitate the regular testing of and provision of lifestyle advice to people at risk of developing diabetes

- **PRACTICE-BASED REGISTERS** of people with **diagnosed diabetes** to facilitate the regular call and recall for review
  - which are shared between primary and secondary care

- **PRACTICE GUIDELINES** for the **prevention and management of diabetes**

- **PATIENT CENTRED** individualised **care plans** agreed with each person with diabetes

- **PERSONAL DIABETES RECORDS** that can be shared with and accessed by all the health professionals involved in providing care to an individual – as well as the person with Diabetes

- **LOCAL DIABETES POLICY** that includes suggested criteria for referring people with diabetes to specialist services

- **NAMED CONTACT** to help guide the person with diabetes through the healthcare system.

Standards of Care

In order to support and encourage self-care and self-management, all healthcare staff should:

- **treat individuals with respect and dignity**

- **Availability** - ensure that people with diabetes **know how to contact members of the team** providing their

- **Review -** provide **high quality care and regularly review** their clinical and psychological needs

- **Audit** - answer any questions about the quality of services received

- **Communication** -provide interpreting services if English is not the person's first language and seek appropriate
services for those with sensory impairment or learning disability

- **structured education** about diabetes management and information of local health
related services

- **Professional Education** -remain up to date about diabetes and its care and treatment, in order to keep people with diabetes up to date

- **Appropriate Referral** - facilitate access to a second opinion where required

S.E.L.L.

- **S**
  - Specialist
- **E**
  - Educator
- **L**
  - Leader
- **L**
  - Local

Specialist

- Super Six
  - Inpatient Care
  - Children and adolescent
  - Pump
  - Pregnancy
  - Renal impairment (eGFr 20-40)
  - Diabetic foot

Speciality Group Patients

Multi-disciplinary

Super-speciality services

Specific skills / knowledge

Specialist

Referral criteria
should be agreed locally and aim to promote the safety of people with diabetes.

Same day referrals

- children and young people with newly diagnosed diabetes
- the majority of adults with newly diagnosed Type 1 diabetes,
- people with diabetes who develop infected, necrotic or gangrenous foot ulceration
- people with diabetes who develop a suspected Charcot foot
- all women with pre-existing diabetes (Type 1 and 2) who become pregnant
- women who develop gestational diabetes
- people with diabetes who sustain a sudden loss of vision, pre-retinal or vitreous haemorrhage,or retinal detachment

Priority referrals

- women who are contemplating pregnancy
- persistent micro-albuminuria
- renal impairment (creatinine >150mmol/l)
- sight threatening retinopathy
- people with diabetes who develop severely at risk feet

Other situations where specialist advice may be required

People with Type 2 diabetes who need to commence insulin therapy will also need to be referred to specialist services in areas where primary care services are not resourced to initiate this.

- recurrent hypoglycaemia
- poor glycaemic control
- hypertension
- dyslipidaemia
- painful neuropathy which is proving difficult to treat
- erectile dysfunction
- amylotrophy
- morbid obesity which requires atypical interventions, eg. surgery such as gastric stapling
- psychological problems, if appropriate psychological/counselling services are not available in primary care.

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Educator

- Professional
  - Mentor ship
  - Audit support
  - Developmental sessions
  - Virtual clinics
- Patient
  - Structured education programmes

Education

• **communication – including the ability to communicate with other members of the primary** healthcare team, specialist care colleagues and colleagues working in other agencies, as well as with people with diabetes and their carers. Staff should also be skilled in behavioural change counselling and have the skills necessary to motivate change and to negotiate and agree goals

• **the provision of education, information and support – including the ability to impart the** necessary knowledge, motivation and self-care skills to enable people with diabetes to take responsibility for their own healthcare, and an understanding of the emotional and social problems likely to be faced by people with diabetes

• **diagnosis and examination – including the identification of the complications of diabetes**

• **clinical management – including the management of diabetes and its complications,** associated conditions, cardiovascular risk factors and care planning skills

• **record keeping and administration – including the maintenance of personal diabetes records,** a diabetes register and a call/recall system.

Leader

- Support innovation
- Reduce heterogeneity
  - Care plans / Pathways
- Communication links
  - Advice
    - Acute
    - Community
    - Email vs. telephone
- Establish support service

Leading

The care of people with diabetes within the primary care setting should be provided by a multidisciplinary team,

- including, as a minimum, the GP and practice nurse, supported by administrative staff.
- Other members of the primary healthcare team, including registered dieticians, podiatrists, district nurses, midwives, health visitors and school nurses and counsellors,

The practice nurse, is essential to the successful provision of Diabetes Care

The GP should be actively involved
in the optimisation of blood glucose and lipid control,
the management of Hypertension
The identification and management of diabetic complications.

Pharmacists are increasingly becoming active members of the primary healthcare team.
The new pharmaceutical services contract includes
familiar essential services, such as dispensing,
signposting and sharps disposal.
- and offer additional and enhanced services, which could include full clinical medicines review, diabetes and CHD screening, smoking cessation and care home services.

The primary healthcare team should be supported by additional personnel

- Consultant Diabetologist
- Diabetic Specialist Nurse
- Retinal Screening service

Local

- Keep it local
  - Community links
  - Virtual clinics
  - In practice teaching / mentorship

Primary care organisations (PCOs) need local and integrated recommendations to help them

•identify the key issues to ensure they meet the needs of people with diabetes.

Primary care organisations will need to ensure that commissioned services are

• person-centred

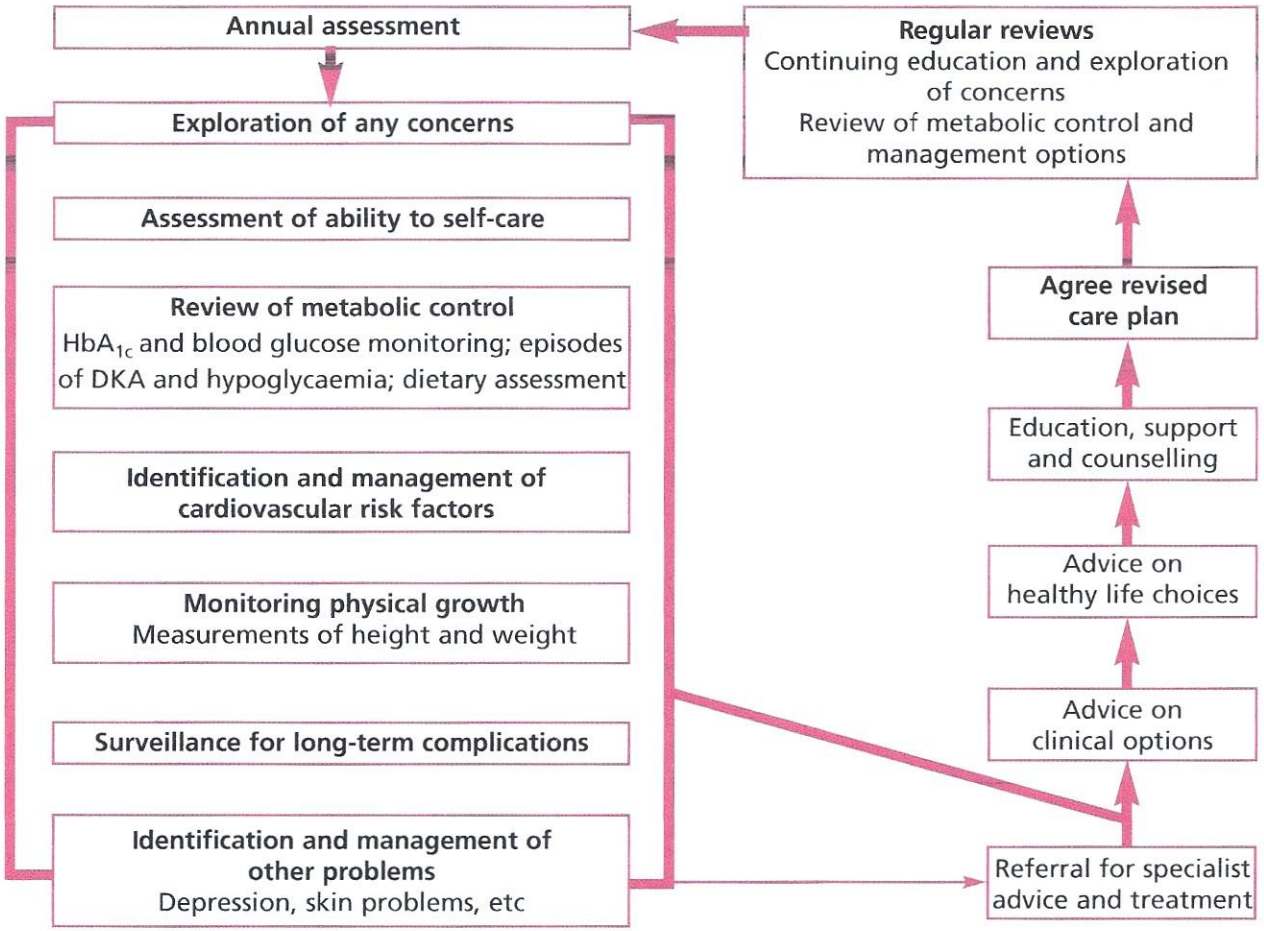
•delivered by appropriately skilled healthcare professionals,

• working within a well organised whole system of care.

"The challenge for PCOs will be to ensure that resources and training are provided and effectively
utilised in order to ensure that these recommendations are adopted throughout primary care,
and not just in centres of excellence."

Dr Azhar Farooqi
General Practitioner
Diabetes Lead, Eastern Leicester PCT

Continuing care of people with diabetes



Adapted from: National Service Framework for Diabetes: Supplementary Information. Department of Health 2002

Sensible Rationing of management

Primary Care

- Screening
- Education
- Support
- Monitoring
- Stepwise intensification
- Sign posting specialist care

Secondary Care

- Paediatric
- Adolescent care
- Pump Therapy
- Ante-natal management
- Complicated / off-licence care

Inpatient care

S – SPECIALIST

E – EDUCATOR

L – LEADER

L - LOCAL

Steps to the solution

- Integrated care to manage patients effectively between Primary and secondary care services
- Education and specialist support to improve Primary care skills
- Structured education for all patients
- Specialist inpatient management teams
- Medical IT system to break down boundaries
- Appropriate and constructive use of national audit data
- Standardisation services across the UK

Not a competition , but a partnership

Primary Care to take ownership of the pathway
Secondary Care to give support - A SPECIALIST and ACUTE service

Thank You