

Think Not What Primary Care Can Do For You, But What You Can Do For Primary Care

ASSOCIATION OF BRITISH CLINICAL DIABETOLOGISTS

SPRING MEETING 2016, RENAISSANCE MANCHESTER CITY CENTRE



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- ❑ Graduated Edinburgh 2000
- ❑ 6-session GP Partner North Berwick Health Centre, near Edinburgh
- ❑ GPwSI Diabetes & Medical Education
- ❑ PCDS Committee Member
- ❑ Diabetes UK Clinical Champion
- ❑ Come Dine With Me Edinburgh Winner 2013



Professor Azhar Farooqi
Mary MacKinnon Lecture 2012

“Primary Care: The Custodian of
Diabetes Care?”



**"YOU CAN BE MY
WINGMAN
ANY TIME"**



PICTUREQUOTES.COM

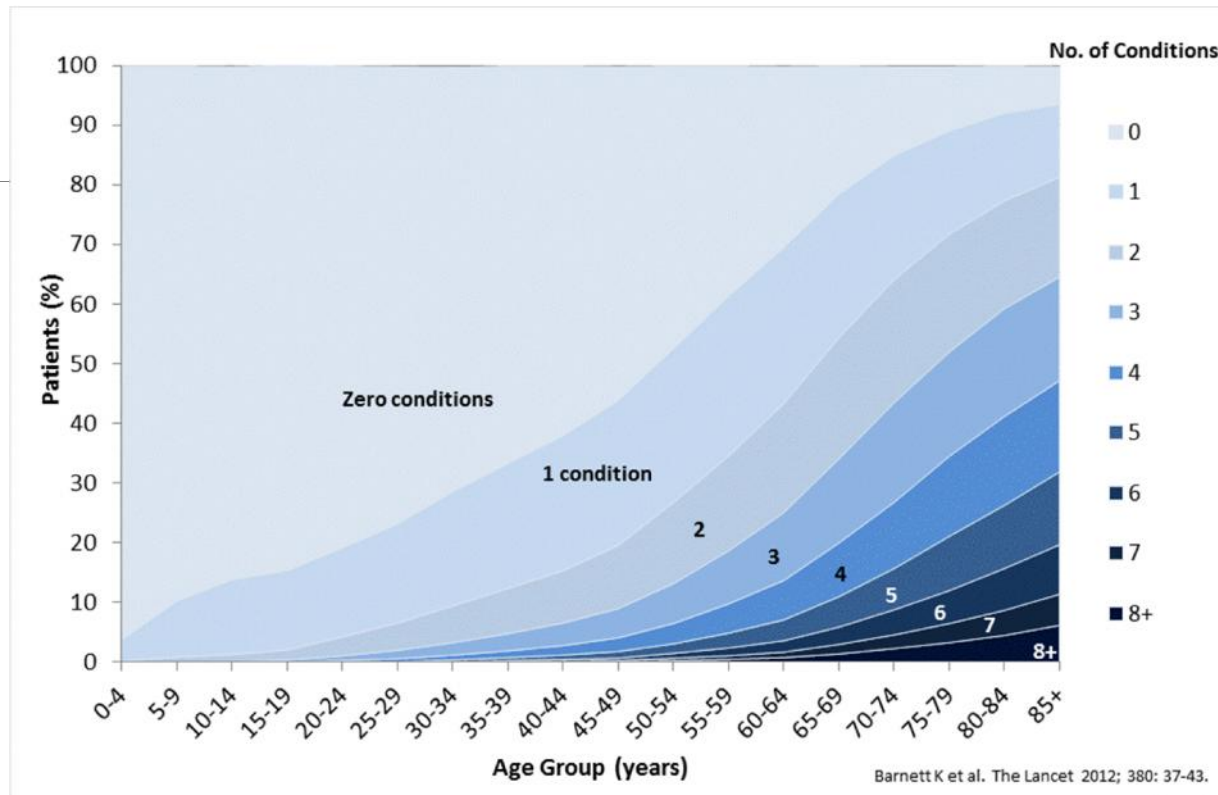


“Specialist plus generalist approach in the community”

- Joint community clinics
- Flexibility, efficiency & effectiveness
 - Roles of Consultant & GP
- Advantages
 - Mutual education
 - Fewer investigations
 - Reduced clinic burden
- Primary Care - the last bastion of generalism
 - Evolving role, holism, managing uncertainty
- Benefits of collaborative approach

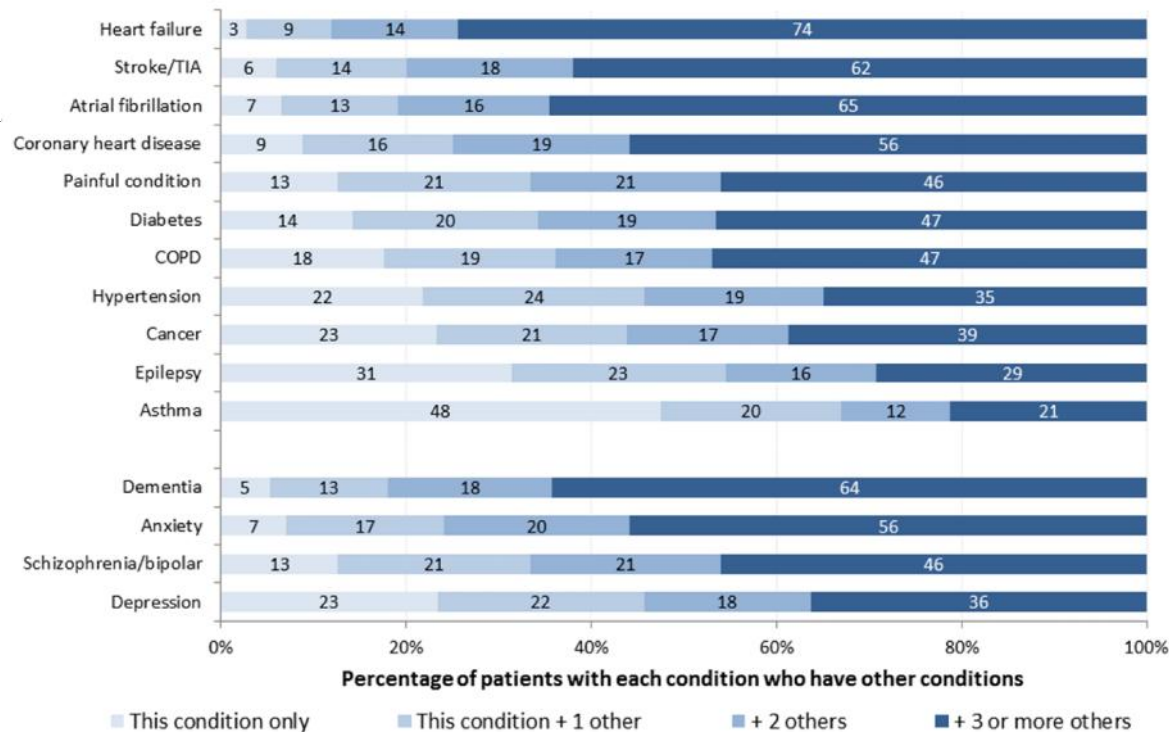


Multimorbidity is the norm



- 1.7m – 23% multimorbid
- Majority of >65y have 2+ conditions, and the majority of >75y have 3+ conditions
- More people have 2+ conditions than only have 1

Most people with any long term condition have multiple conditions



Barnett K et al. The Lancet 2012; 380: 37-43.

- ❑ Guidelines remain focused on patients with one disease
- ❑ Fragmentation of care – ADRs, ineffective care, unnecessary hospital clinic reviews & admissions
- ❑ Whole system interventions required – unified disease registers

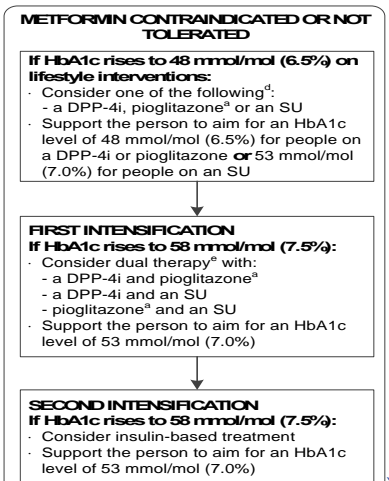
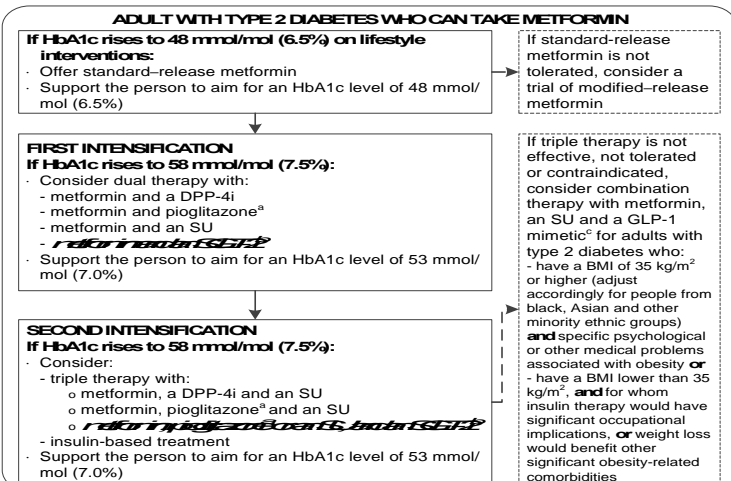
Guidelines vs. Individualised Care

NICE National Institute for Health and Care Excellence

Algorithm for blood glucose lowering therapy in adults with type 2 diabetes

- Reinforce advice on diet, lifestyle and adherence to drug treatment.
- Agree an individualised HbA1c target based on: the person's needs and circumstances including preferences, comorbidities, risks from polypharmacy and tight blood glucose control and ability to achieve longer-term risk-reduction benefits. Where appropriate, support the person to aim for the HbA1c levels in the algorithm. Measure HbA1c levels at 3/6 monthly intervals, as appropriate. If the person achieves an HbA1c target lower than target with no hypoglycaemia, encourage them to maintain it. Be aware that there are other possible reasons for a low HbA1c level.
- Base choice of drug treatment on: effectiveness, safety (see MHRA guidance), tolerability, the person's individual clinical circumstances, preferences and needs, available licensed indications or combinations, and cost (if 2 drugs in the same class are appropriate, choose the option with the lowest acquisition cost).
- Do not routinely offer self-monitoring of blood glucose levels unless the person is on insulin, on oral medication that may increase their risk of hypoglycaemia while driving or operating machinery, is pregnant or planning to become pregnant or if there is evidence of hypoglycaemic episodes.

If the person is symptomatically hyperglycaemic, consider insulin or an SU. Review treatment when blood glucose control has been achieved.



- Insulin-based treatment**
- When starting insulin, use a structured programme and continue metformin for people without contraindications or intolerance. Review the continued need for other blood glucose lowering therapies^f.
 - Offer NPH insulin once or twice daily according to need.
 - Consider starting both NPH and short-acting insulin either separately or as pre-mixed (biphasic) human insulin (particularly if HbA1c is 75 mmol/mol (9.0%) or higher).
 - Consider, as an alternative to NPH insulin, using insulin detemir or glargine^g if the person: needs assistance to inject insulin, lifestyle is restricted by recurrent symptomatic hypoglycaemic episodes or would otherwise need twice-daily NPH insulin in combination with oral blood glucose lowering drugs.
 - Consider pre-mixed (biphasic) preparations that include short-acting insulin analogues, rather than pre-mixed (biphasic) preparations that include short-acting human insulin preparations, if: the person prefers injecting insulin immediately before a meal, hypoglycaemia is a problem or blood glucose levels rise markedly after meals.
 - Only offer a GLP-1 mimetic^c in combination with insulin with specialist care advice and ongoing support from a consultant-led multidisciplinary team^h.
 - Monitor people on insulin for the need to change the regimen.

Abbreviations: ^{DPP-4i}Dipeptidyl peptidase-4 inhibitor, ^{GLP-1}Glucagon-like peptide-1, ^{SGLT-2i}Sodium-glucose cotransporter 2 inhibitors, ^{SU}Sulfonylurea. Recommendations that cover DPP-4 inhibitors, GLP 1 mimetics and sulfonylureas refer to these groups of drugs at a class level.

a. When prescribing pioglitazone, exercise particular caution if the person is at high risk of the adverse effects of the drug. Pioglitazone is associated with an increased risk of heart failure, bladder cancer and bone fracture. Known risk factors for these conditions, including increased age, should be carefully evaluated before treatment: see the manufacturers' summaries of product characteristics for details. Medicines and Healthcare products Regulatory Agency (MHRA) guidance (2011) advises that 'prescribers should review the safety and efficacy of pioglitazone in individuals after 3-6 months of treatment to ensure that only patients who are deriving benefit continue to be treated'.

b. Treatment with combinations of drugs including sodium-glucose cotransporter 2 inhibitors may be appropriate for some people at first and second intensification; see NICE technology appraisal guidance 288, 315 and 336 on dapagliflozin, canagliflozin and empagliflozin respectively. All three SGLT-2 inhibitors are recommended as options in dual therapy regimens with metformin under certain conditions. All three are also recommended as options in combination with insulin. At the time of publication, only canagliflozin and empagliflozin are recommended as options in triple therapy regimens. The role of dapagliflozin in triple therapy will be reassessed by NICE in a partial update of TA288. Serious and life-threatening cases of diabetic ketoacidosis have been reported in people taking SGLT-2 inhibitors (canagliflozin, dapagliflozin or empagliflozin) or shortly after stopping the SGLT-2 inhibitor. MHRA guidance (2015) advises testing for raised ketones in people with symptoms of diabetic ketoacidosis, even if plasma glucose levels are near normal.

c. Only continue GLP-1 mimetic therapy if the person has a beneficial metabolic response (a reduction of HbA1c by at least 1.1 mmol/mol (1.0%) and a weight loss of at least 3% of initial body weight in 6 months).

d. Be aware that, if metformin is contraindicated or not tolerated, repaglinide is both clinically effective and cost effective in adults with type 2 diabetes. However, discuss with any person for whom repaglinide is being considered, that there is no licensed non-metformin-based combination containing repaglinide that can be offered at first intensification.

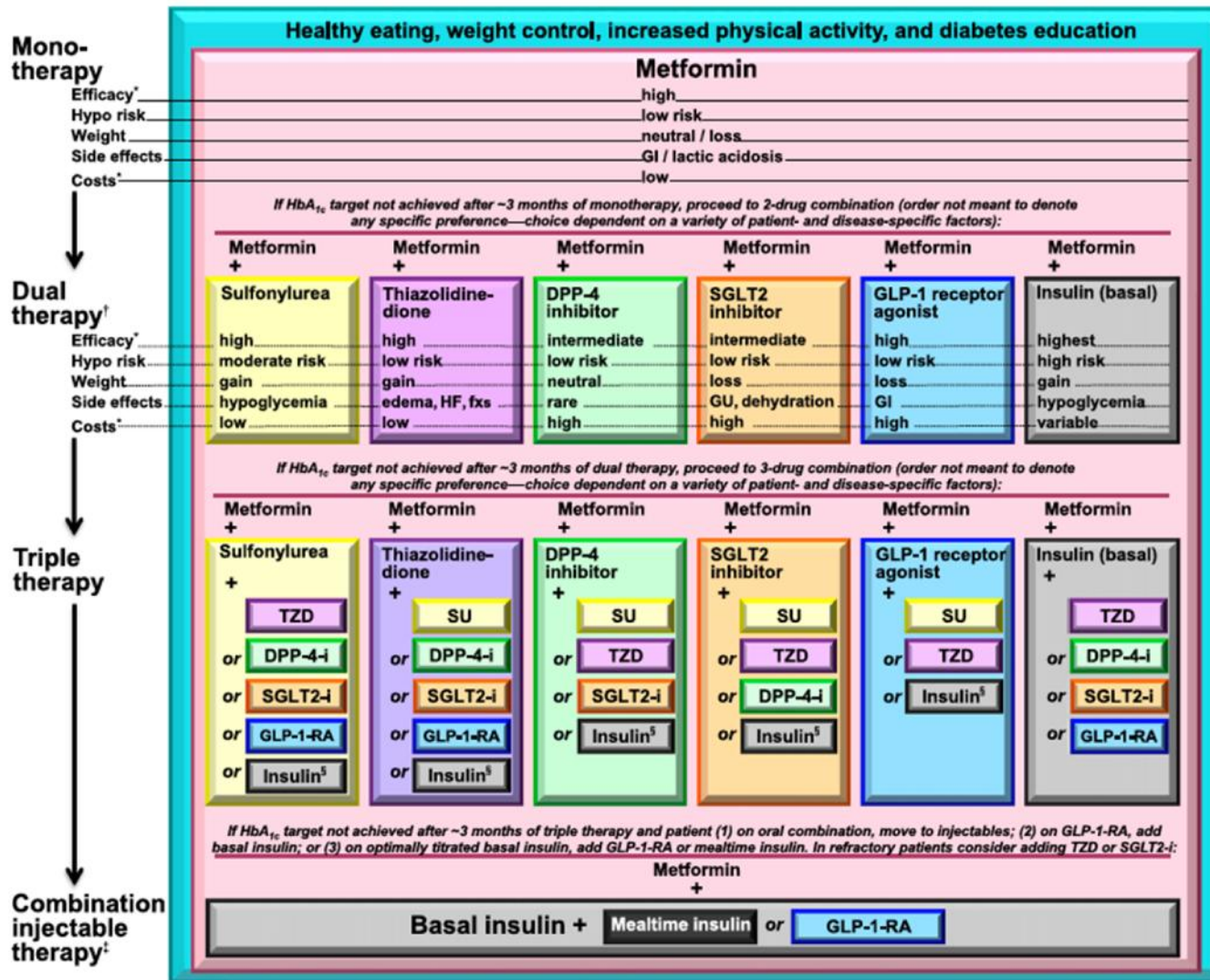
e. Be aware that the drugs in dual therapy should be introduced in a stepwise manner, checking for tolerability and effectiveness of each drug.

f. MHRA guidance (2011) notes that cases of cardiac failure have been reported when pioglitazone was used in combination with insulin, especially in patients with risk factors for the development of cardiac failure. It advises that if the combination is used, people should be observed for signs and symptoms of heart failure, weight gain, and oedema. Pioglitazone should be discontinued if any deterioration in cardiac status occurs.

g. The recommendations in this guideline also apply to any current and future biosimilar product(s) of insulin glargine that have an appropriate Marketing Authorisation that allows the use of the biosimilar(s) in the same indication.

h. A consultant-led multidisciplinary team may include a wide range of staff based in primary, secondary and community care.

Guidelines vs. Individualised Care



SIGN T2DM Treatment Algorithm¹

1st LINE OPTIONS in addition to lifestyle measures; START ONE OF

Metformin (MET)	Sulphonylurea* (SU) <ul style="list-style-type: none"> • If intolerant to metformin • If weight loss/osmotic symptoms
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Review and if not reaching target move to 2nd line

	Usual approach
	Alternative approach
*	Continue medication if EITHER individualised target achieved OR HbA_{1c} falls >0.5% (5.5 mmol/mol) in 3-6 months

2nd LINE OPTIONS in addition to lifestyle measures, adherence to medication and dose optimisation; ADD ONE OF

SU*	Thiazolidinedione* <ul style="list-style-type: none"> • If hypos a concern (e.g. driving, occupational hazards, at risk of falls) and if no congestive heart failure 	DPP-4 inhibitor* <ul style="list-style-type: none"> • If hypos a concern (e.g. driving, occupational hazards, at risk of falls, or if weight gain a concern)
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Review and if not reaching target move to 3rd line

3rd LINE OPTIONS in addition to lifestyle measures, adherence to medication and dose optimisation; ADD OR SUBSTITUTE WITH ONE OF

ORAL (continue MET/SU if tolerated)		INJECTABLE (if willing to self inject; continue MET/SU if tolerated)	
Thiazolidinedione* If no congestive heart failure	DPP-4 inhibitor* If weight gain a concern	Insulin* (inject before bed) <ul style="list-style-type: none"> • If osmotic symptoms/rising HbA_{1c}; NPH insulin initially • If hypos a concern, use basal analogue • Add prandial insulin with time if required 	GLP-1 agonists* <ul style="list-style-type: none"> • If BMI > 30 kg/m² • If a desire to lose weight • Usually <10 years from diagnosis

1. Adapted from: Scottish Intercollegiate Guidelines Network. Management of diabetes: a national clinical guideline. March 2010. Prescribers should refer to the British National Formulary (www.bnf.org) and the Scottish Medicines Consortium (www.scottishmedicines.org.uk) for updated guidance on licensed indications, full contraindications and monitoring requirements

Sir William Osler 1849-1919

“The good physician treats the disease;
the great physician treats the patient
who has the disease”

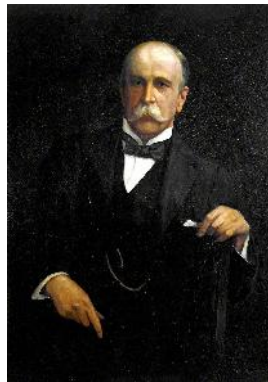
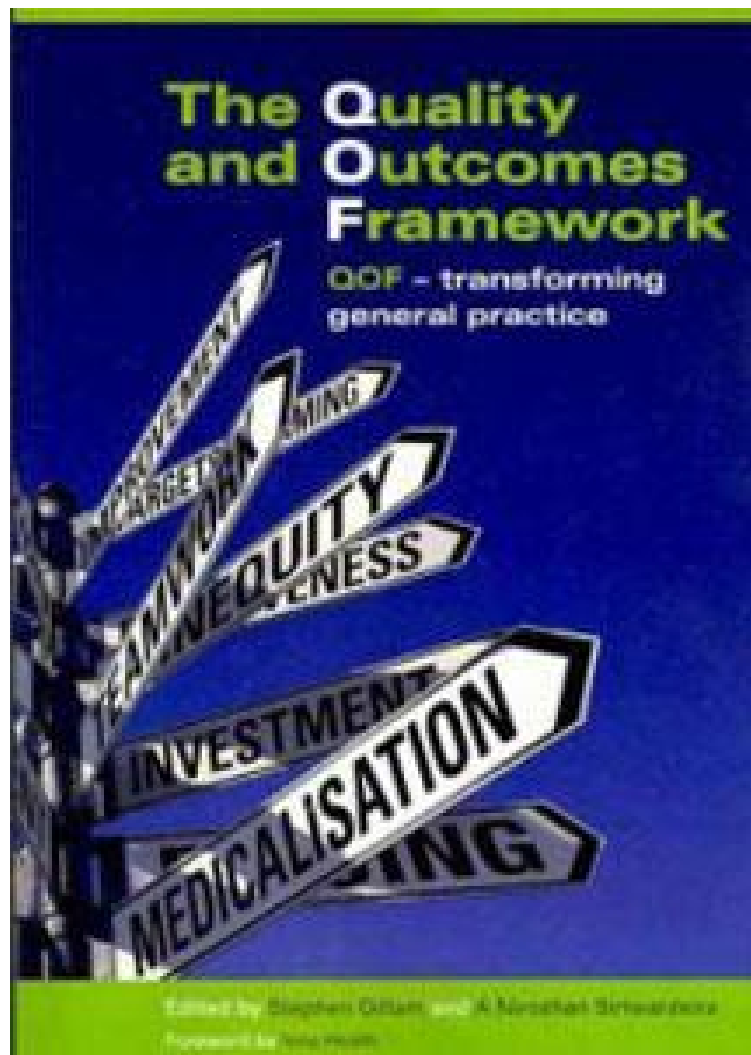


photo credit: Wellcome Library



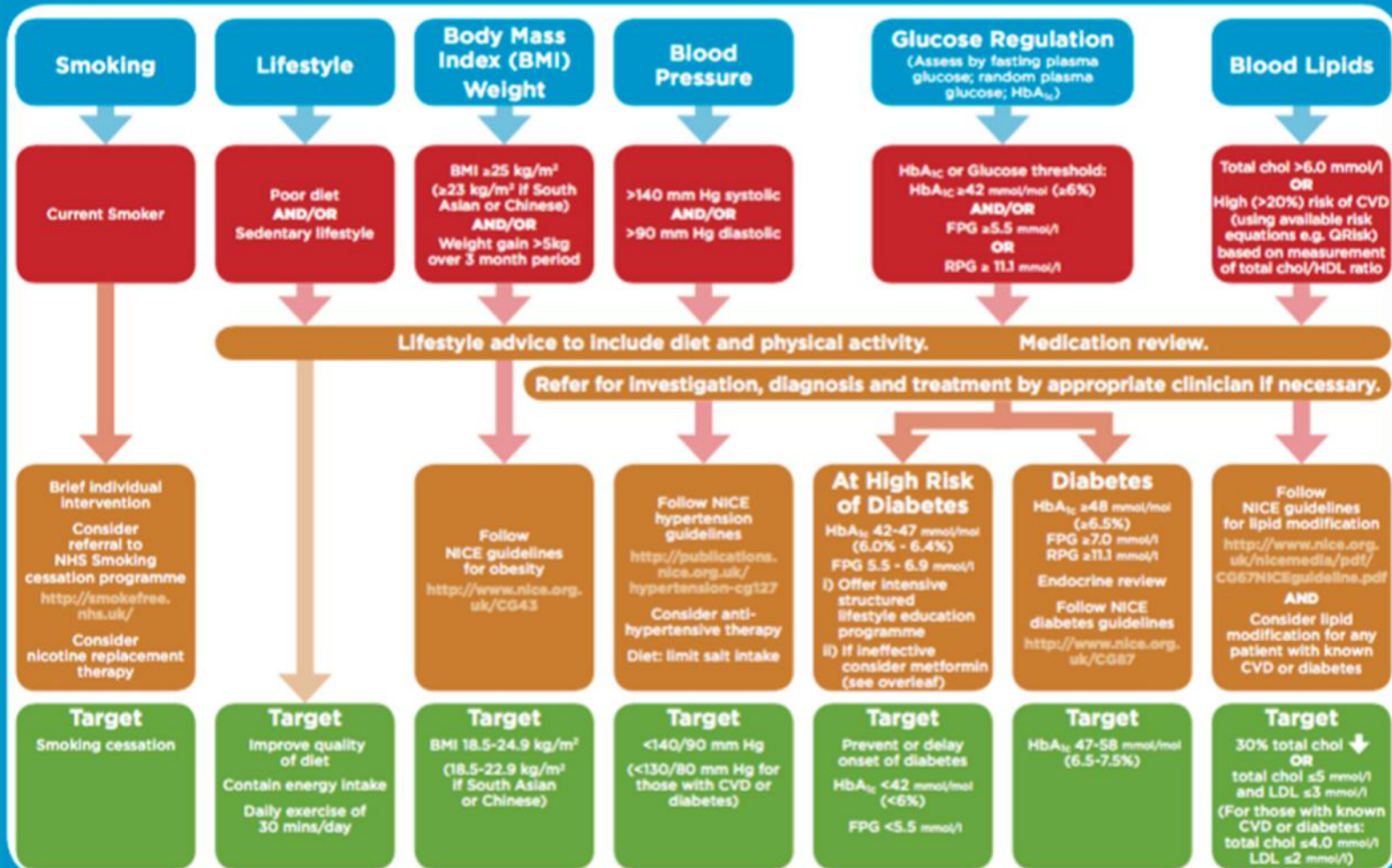
Julian Tudor Hart, 1971

“The availability of good medical care tends to vary inversely with the need for it in the population served”



Positive Cardiometabolic Health Resource

An intervention framework for patients with psychosis on antipsychotic medication



Paracelsus 1493-1541

“Poison is in everything, and no thing is without poison. The dosage makes it either a poison or a remedy”



New Therapies

Pre-Pregnancy Counselling



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Welcome to The Clinical Practice Research Datalink

The Clinical Practice Research Datalink (CPRD) is a governmental, not-for-profit research service, jointly funded by the NHS National Institute for Health Research (NIHR) and the Medicines and Healthcare products Regulatory Agency (MHRA), a part of the Department of Health. We have been providing anonymised primary care records for public health research since 1987. Research using CPRD data has resulted in over 1,500 publications which have led to improvements in drug safety, best practice and clinical guidelines. Examples include confirming safety of MMR vaccine, informing NICE cancer guidance, safeguarding use of pertussis vaccine in pregnancy, influencing the management of hypertension in diabetics. CPRD is now also using primary care data in clinical trials. Examples include a real world diabetes studies comparing a new therapy to standard of care, and randomised controlled trials on myocardial infarction and COPD patients.

This e-health secure research service combines the expertise of the MHRA's General Practice Research Database (GPRD) and the Department of Health's NIHR Research Capability Programme (RCP) which piloted the service over the last four years. CPRD combines the activities of GPRD and RCP.

Researchers using CPRD data and services will benefit from:

- the unique nature of the NHS as essentially the single provider of health care (free at the point of care)
- the NHS unique patient identifier - NHS number [It is only used by a trusted third party for linkage and is never released to researchers. It is a benefit in ensuring records can be validly linked within the approved governance process]
- the NHS Primary Care gatekeeper approach to care
- a partnership with the NHS National Institute for Health Research (NIHR)
- a partnership with the [NIHR Clinical Research Network](#)
- the extensive coded Electronic Health Record (EHR) IT systems
- powerful coding systems
- data quality markers, developed over many years
- rapid data query tools even though CPRD data volumes are substantial
- extensive data & research knowledge of CPRD staff and NIHR partner colleagues via the [CPRD Knowledge Centre](#)

CPRD services will develop incrementally over time increasing the population cover of primary care data and number of linked datasets. CPRD will also link to data from other domains such as Social Care.

All access and use of data via the CPRD are carefully controlled under UK and European law and the rules and regulations operating in the NHS. See [CPRD Governance](#) for more details

The CPRD provides three key services to academic, pharma/biotech/devices and CRO researchers both in the UK and globally, subject to legal arrangements and approvals:

- [Interventional services](#) and IT systems for clinical trials, bio-sample collections and Patient Reported Outcomes (PROs)
- [Research Services](#) Full Pharmacoepidemiology, Pharmacoconomics, Outcomes & risk benefit
- [Observational data](#) Access to NHS and other health related data and linked data (suitably anonymised)

Many CPRD services are unique as they offer researchers capabilities which are impossible or hard to gain elsewhere and are provided in a way that gives added value to the research experience and its outputs.

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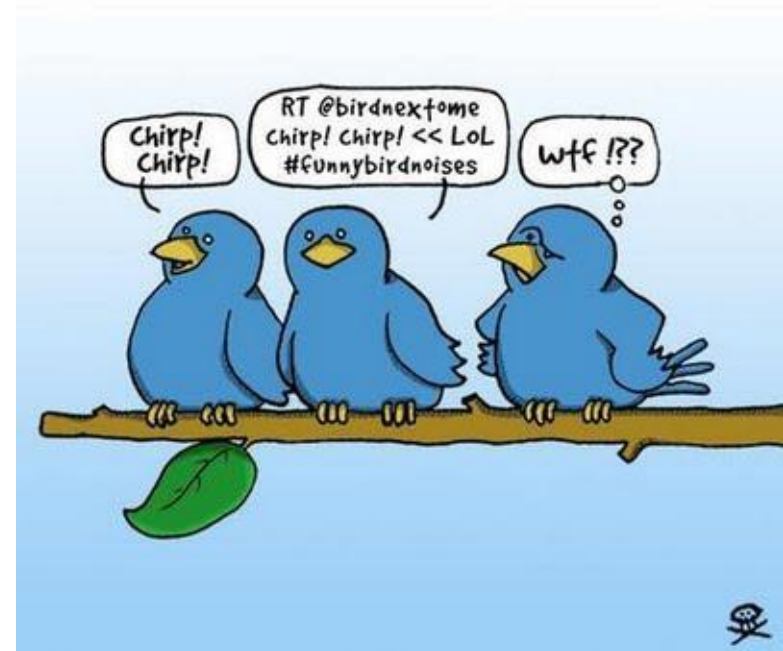
Education & Networking



Social Media



@drkevinfernando



Alain de Botton

“There is no such thing as work-life balance. Everything worth fighting for unbalances your life”





Bill Withers 1981

“Just the two of us, we can make it if we try
Just the two of us,
Building castles in the sky
Just the two of us, you and I”

