BALANCING SHORT-TERM COSTS AND LONG-TERM BENEFITS

INTRODUCTION

- Treating type 2 diabetes (T2D) accounts for about 9% of the annual NHS budget.¹
- Treating complications accounts for 80% of the costs of managing T2D.¹
- Indirect costs (eg lost productivity, and social and informal care) also impose a heavy economic burden.
- Antidiabetes drugs account for an estimated 5.5% of the total direct costs of treating T2D.
- Cost, although important, is not the only element in the decision about which drug to prescribe (see leaflet on initiating GLP-1RAs).

REMEMBER THE SIX 'P'S FOR PRESCRIBING

When deciding on a therapy, healthcare professionals often consider the cost of the medication; however, therapies for diabetes have varying roles, are suitable for different patients, and are associated with particular side effects and benefits beyond glucose lowering; so the choice should take into account the 6 Ps of prescribing.

Pathophysiology	 Consider the pathophysiology to individualise management eg: insulin resistance or deficiency; red flags such as new diabetes with unintentional weight loss Consider the drug's pharmacological profile with respect to the patient's pathophysiology: eg mechanism of action, pharmacokinetics, pharmacodynamics, interactions
Potency	 How well the drug works: eg reduction in HbA_{1c} duration of glycaemic control, effect on weight, cardiovascular outcomes
Practicalities	eg dose frequency, dose adjustment, monitoring
Possibilities	What are the actions other than lowering HbA _{1c} such as the effect on weight or cardiovascular outcomes
Problems	eg side-effects, concerns (eg heart failure and pancreatitis, poor concordance)
Price	Costs are more than the acquisitior price and include, for example, the costs of monitoring, consultations and managing adverse events

FACTORS THAT INFLUENCE COST-EFFECTIVE PRESCRIBING OF GLP1-RAs

A hospitalisation for hypoglycaemia in GLP-1 RAs produce sustained reductions in England lasts for a mean of 6.3 days and glycaemia that may mean fewer or delayed changes in treatment. This in turn, may costs £13512 reduce the frequency of monitoring and consultations, and by improving control, **Glycaemic** reduce costs by avoiding complications Hypoglycaemia Control Weight change Cardiovascular GLP1-RAs may be more cost-effective in actions overweight or obese people, who are likely to GLP1-RAs seem to produce a range of lose more weight and where the likelihood beneficial cardiovascular actions and that higher doses of insulin would be outcomes: See the CVOT leaflet for needed if used instead of a GLP-1 RA. Weight more details reduction reduces insulin resistence

REFERENCES

- 1 NHS Diabetes Prevention Programme (NHS DPP) Available at publichealthmatters.blog.gov.uk/2018/05/24/health-matters-preventingtype-2-diabetes Accessed January 2019
- 2 Holbrook T, Tang Y, Das R, et al *International Journal of Clinical Practice* 2017;71:e12958

PCDS Primary Care Diabetes Society

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