

Blood sugar control problems

A few suggestions from Dr Anne Maloney April 2008

Unexplained hypos:

Achilles heel of good blood sugar control , particularly in type one. Possible reasons include

- motivated patient trying to run blood sugars too tight
- not rotating injection sites. Variable absorption if injecting into areas of lipohypertrophy
- excess alcohol, especially bingeing
- may have reduced need for medication if liver or renal function deteriorating
- may be faulty pen or meter. Older patients are sometimes confused about regime, can't see to draw up insulin etc
- may have celiac disease or thyroid dysfunction , especially if type one

Management options include:

- refer diabetes educator. Can check meter/ pen, advice re adjustment to medication regime , review injection technique and generally try and tease out what is happening.
- consider checking celiac antibodies / TFTs / liver and renal function
- review alcohol intake and general lifestyle issues
- refer dietitian for advice re low GI foods which will reduce lability of BSLs
- priority is to avoid hypos, even at expense of overall control .Metformin can not cause hypos but sulphonureas / insulin doses should be reduced. Particularly important after a severe hypo as patient will lose hypo awareness . Generally need to err on the side of BSLs too high rather than too low - control can be gradually tightened again once stabilised . Diabetes educator can provide guidance on insulin adjustments .
- if type one , change over to lantus [to replace protaphane or humulin N] as reduces risk of hypos. Requires special authority which I am happy to sign if form faxed through to me.
- Warn patient to be careful to check pre driving and other potentially dangerous activities.

HBA1C high but recorded BSLs good

- may be going high post meals so ask patient to check more often at variable times
- meter may be faulty
- patient may not be reporting accurately
- recheck HBA1C [lab error not unknown]

BSLs/HBA1C generally awful

- may be deliberate to avoid hypos. Fear of hypos ,sometimes almost amounting to phobia surprisingly common , especially in type one and often not volunteered. Can be extremely unpleasant experience apparently and patient often not 100% all day – major issue if caring for young children, self employed etc . Changing to lantus may help and encourage to slowly tighten control. Patients might also benefit from review with psychologist [Mike Prouting] .
- patient may develop hypo symptoms once anywhere near normal BSL levels so reluctant to improve control. Need to understand that body has adjusted to chronically high BSLs . Will adjust to lower BSLs if improve control slowly.
- may need more medication ie higher doses of insulin / consider trial metformin in addition to insulin if overweight. If on BD insulin, consider changing to intensive regime. Means more injections but patients usually appreciate the greater flexibility of the rapid acting insulins.
- If still on actrapid, change to rapid acting insulin[humalog or novarapid] unless control good.

- Dietitian review . Patients sometimes confused ideas about appropriate diet eg drinking large amounts of fruit juice.
- Compliance. Major player, especially in younger patients. Obviously insulin won't work if patient not taking it, major dietary indiscretion etc. Sometimes underlying anger/denial/feelings of helplessness/ lack of understanding/dislike of health professionals etc . Ultimately the responsibility lies with the patient and you won't win them all .Resources include diabetes educator , dietitian and psychologist but patients who do eventually mend their ways often attribute this to the years of education/advice from GPs/practice nurses . That is, they probably are listening even if not ready to make the changes. Any improvement in HBA1C is worthwhile in reducing risk of complications

Sudden deterioration in usually well controlled patient

- ? infection or other underlying pathology
- ? pancreatic pathology [rare]
- faulty pen or meter

Gradual deterioration in control

- likely natural progression of underlying disease, particularly if type 2 . Check compliance etc but reassure patients who are doing their best that not unexpected over time.