

My bitter-sweet experience as a peri-operative physician.

Dr S.B.Gummaraju.FRCA. Consultant Anaesthetist

ROBERT JONES AND AGNES HUNT ORTHOPAEDIC HOSPITAL NHS FT. OSWESTRY SY10 7AG

Comprehensive care pathway for peri-operative management of diabetes



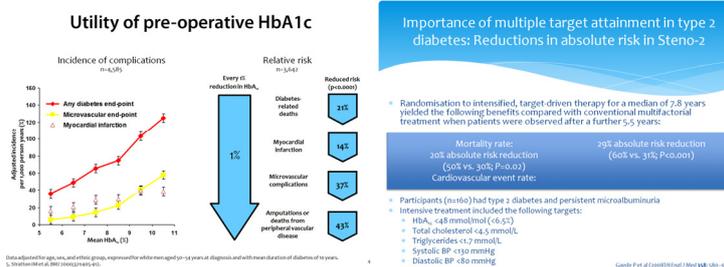
Introduction

Type 2 Diabetes is the fastest growing health risk in the UK. At least 20% of the surgical in-patients are diabetics.

Inspired by the mantra “anaesthetist’s role as a peri-operative physician”. I embarked upon improving the peri-operative care of diabetics scheduled for elective procedures as recommended by National Health Services Diabetes, United Kingdom. Management of adults with diabetes undergoing surgery and elective procedures: improving standards, 2011. [1]

Results

Initial audit highlighted several deficiencies; only 19% had HbA1c and routine blood biochemistry done by GPs despite good evidence to monitor them regularly.



GP referral letters

| Measure No. | Evidence of quality of Care or Service (Criterion) | Standard | Compliance |
|-------------|--|----------|------------|
| 1 | Type of diabetes | 80% | 100% |
| 2 | HbA1c levels | 80% | 19% |
| 3 | Medications | 80% | 89% |
| 4 | Co-morbidities | 80% | 89% |
| 5 | U&E | 80% | 19% |
| 6 | eGFR | 80% | 19% |
| 7 | BMI | 80% | 11% |

Management in theatre

| | | | |
|---|--|------|-----|
| 1 | Diabetic patients are listed on the first third on the operating lists. | 95% | 78% |
| 2 | Patients have their BMs monitored hourly during surgery | 100% | 6% |

It was decided by the diabetic working group to measure the HbA1c levels of all diabetic patients in our pre-operative assessment clinic and focus on the measures that might impact upon the care of diabetic in-patients.

Results

| Measure No. | Evidence of quality of Care or Service (Criterion) | Standard | Standard met in 2012? | Standard met in 2014? |
|-------------|--|----------|-----------------------|-----------------------|
| 1 | Diabetic patients are to have their type of diabetes recorded | 100% | Yes (100%) | No (97%) |
| 2 | Diabetic Patients are admitted on the same day of the procedure | 90% | No | Yes (94%) |
| 3 | Diabetic patients are listed on the first third of the operating list | 95% | No (78%) | No (60%) |
| 4 | Diabetic patients have their BMs monitored hourly during surgery | 100% | No (6%) | No (51%) |
| 5 | Diabetic patients have a postoperative diabetes management plan is created in theatres | 100% | Not recorded | No (27%) |

Discussion

The guidelines recommend that diabetics are operated upon within the first third of the operating list; this was not the case in 39% in 2014 in comparison with 78% from 2012 sample. Potentially patients could miss more than one meal and starve for longer periods.

Monitoring of blood glucose in theatres vastly improved to 82% in 2014 as compared to 6% in 2012.

Only 27.5% of diabetic patients had a documented plan for their post-operative management of diabetes.

Length of stay for diabetic patients was within the prescribed standards and there were no delayed discharges attributable to diabetes alone.

Conclusions

In order to enhance awareness, a talk by Endocrinologist at the local British Medical Association meeting was organised for GPs and Hospital doctors.

Concerted efforts resulted in all stakeholders agreeing that:

- GPs will be encouraged to monitor HbA1c levels.
- HbA1c levels in excess of 70mmols/mol will not be offered elective surgery.
- Where possible diabetics will be listed first or at least accommodated within the first third of the operating lists.
- Anaesthetists will improve peri-operative monitoring and care.
- Re-audit.

Peri-operative management of the “surgical diabetic” can be a challenging experience with its share of sweetness and bitterness.

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Correspondence: Dr S.Gummaraju. sridhar.gummaraju@rjah.nhs.uk

Methods

- Multi-disciplinary audits with the medical team; retrospective audit of 50 diabetics in 2012 followed by a focussed prospective re-audit of 87 patients in 2014.
- Adaptation of the guidelines and development of protocols.
- Meetings with stakeholders.
- Engagement with General Practitioners. (GPs)
- Updating departmental colleagues.