SWEET - Securing Appropriate Services and Infrastructure for Pediatric and Adolescent Diabetes in Europe

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ISPAD International Society for Pediatric and Adolescent Diabetes

SWEET PEDIATRIC DIABETES WORKING TO CREATE CENTRES OF REFERENCE

BACKGROUND

"SWEET"

- "Better control in Pediatric and Adolescent diabeteS : Working to CrEat CEnTers of Reference"
- based on a partnership of diabetes organizations led by the ISPAD with contributions of IDF Europe, FEND, and PCDE
- network of peer audited Centers of Reference (CORs) with a continuous electronic documentation of at least 150 pediatric patients with diabetes treated by a multidisciplinary team based on the ISPAD clinical practice recommendations

OBJECTIVE AND METHODS

Network of CoRs with data collection on **SWEETBASE** (Fig. 1) for benchmarking and longitudinal health analysis

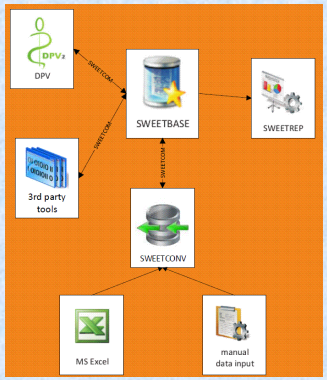

Fig. 1: SWEET Data management system

Aggregate data is de-identified and exported to SWEETBASE according to local ethical and data safety regulations

- minimum collected data: age, diabetes duration, gender, diabetes type, HBA1c
- optional: height, weight, blood pressure; screening for nephropathy, hyperlipidaemia, celiac disease, thyroid disease and retinopathy

RESULTS

Data collection

2006 -2013 with 14 centres in 13 countries in Europe (Fig. 2)
Overall number of visits = 105373
Age = 14.1 years (median)
Diabetes duration = 5.1 years (median)

Fig. 2: SWEET participating countries in 2012 (blue)

Fig. 3: Distribution in Europe: mainly type 1 diabetes

Data analysis for 2012

- Patients distribution in diabetes (Fig. 3):
  - type 1: n = 5859
  - type 2: n = 62
  - other types: n = 115
- Average visits per diabetes type are more frequent type 1 (Fig. 4):
  - type 1: n = 3,5
  - type 2: n = 2,4
  - other types: n = 2,8
- ISPAD target HbA1c >7,5% was reached in % patients (Fig. 5):
  - type 1: 35 %
  - type 2: 56 %
  - other types: 67 %

  Type 2 has better average control

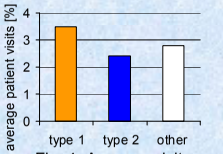

Fig. 4: Average visits per diabetes type

Fig. 5: ISPAD target HbA1c >7,5% reached in % patients

Changes from 2006 - 2006

- Patient visits increases
  - n = 3710 (2006)→24181 (2012)
- Documented monitoring (Fig. 6):
  - weight: 77→91%
  - height: 75→89 %
  - HbA1c: 83→98 %
- Monitoring of co-morbidities (Fig. 7):
  - Blood pressure: 50→65 %
  - Nephropathy: 12→19 %
  - Hyperlipidaemia: 30→41 %
  - Retinopathy: 28→14 %
- valid HbA1c among CoRs (Fig. 8) = 8.1→7.9 % (mean)

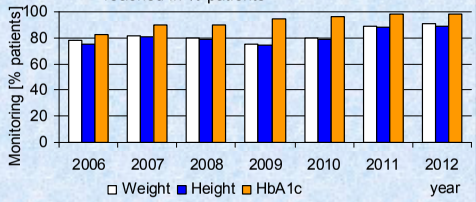

Fig. 6: Completeness of Monitoring is improving

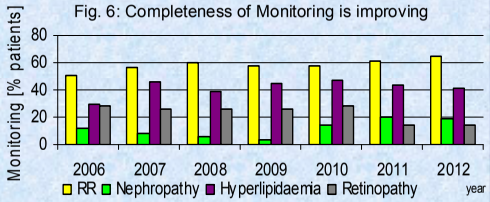

Fig. 7: Completeness of Monitoring of co-morbidities

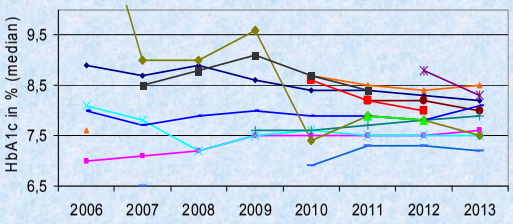

Fig. 8: Benchmarking as a basis for quality circles: Real improvement of centre HbA1c or data quality issues

CONCLUSION

SWEET enables …

- continuous evaluation of diabetes treatment and outcome variables
- benchmarking data to exchange best practices and to reduce inequalities

the SWEET network of CoR's wish …

- to obtain political power on a national and international level
- to facilitate dissemination of new approaches and techniques

the SWEET group hopes …

- to extend from the initial group of centers within countries throughout Europe and beyond

You are very welcome to join us!

The SWEET group…

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