

The following summary was submitted to the British Society of Paediatric Dentistry and not for the Tri-Collegiate Membership in Paediatric Dentistry, however we would expect the Clinical Governance Project to be in a similar format and therefore candidates should find the following abstract a useful example.

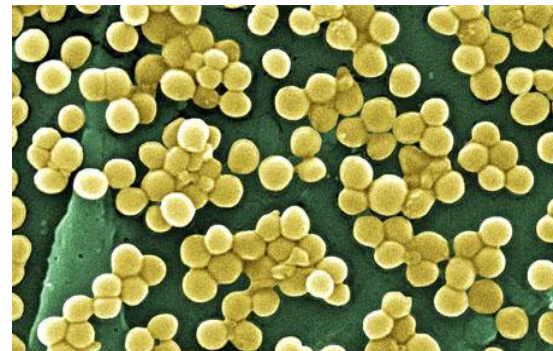
Antibiotic prescribing; a multi-centre audit



Candidate Number 4

Antibiotics in dentistry

- Important role in paediatric dentistry
- Key issues:
 - Antibacterial resistance
 - Appropriate use
 - Accurate prescriptions



Guidelines

- American Academy of Paediatric Dentistry



- Appropriate

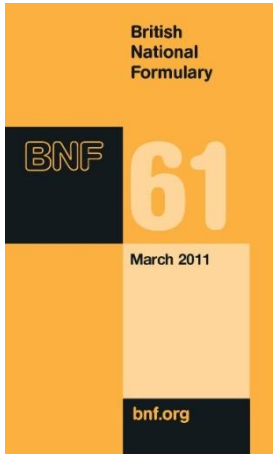
- ✓ Acute facial swelling of dental origin
- ✓ Dental trauma
- ✓ Oral wounds contaminated with extrinsic bacteria
- ✓ Paediatric periodontal disease

- Inappropriate

- × Pulpitis
- × Apical periodontitis
- × Draining sinus tract
- × Localised intra-oral swelling in absence of systemic signs of infection

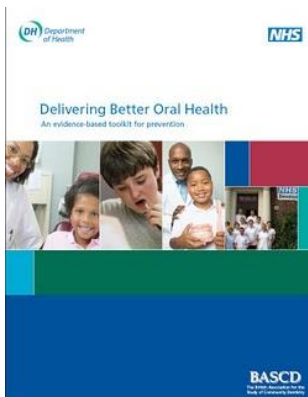
Guidelines

Prescription accuracy



- Date
- Patient's name
- Address
- Date of birth
- Age (if under 12)
- Drug name
- Dose
- Frequency
- Duration
- Quantity
- Prescriber's signature
- Contact details

Sugar-free elixirs



- Delivering Better Oral Health: An evidence-based toolkit for prevention
- Children at high caries risk should receive sugar-free medicines where possible

Aim

- To compare the prescribing practices in the paediatric departments of City1, City 2 and City3 dental hospitals

Objectives

- To examine if antibiotic therapy is used appropriately
- To assess prescription accuracy
- To determine if sugar-free elixirs are prescribed

Standards

- ✓ 100% of prescriptions should be in accordance with American Academy of Paediatric Dentistry guidelines
- ✓ 100% of prescriptions should be completed accurately in accordance with British National Formulary guidelines
- ✓ 100% of prescriptions for oral suspensions should stipulate 'sugar-free'

Method

- Registered with Clinical Effectiveness Unit
- Retrospective case-note evaluation
- Pilot study in February 09
- Data collection sheet
 - Reason for prescription
 - Antibiotic regime
 - Correct details on prescription
- 90 patients, 30 consecutive patients per centre
- Data analysed using Microsoft Excel 2007



Results

- Cycle 1 data collected March - October 2009
- Total of 89 patients

Key results:

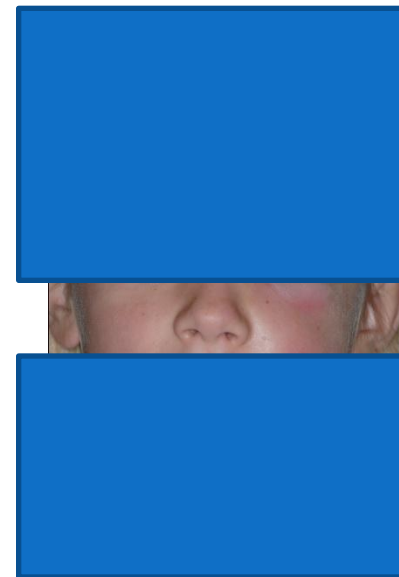
- 75% of patients were prescribed Amoxicillin
- 33% of antibiotics were appropriately prescribed
- 51% of prescriptions were accurately completed
- 53% of prescriptions requested sugar free

Action plan

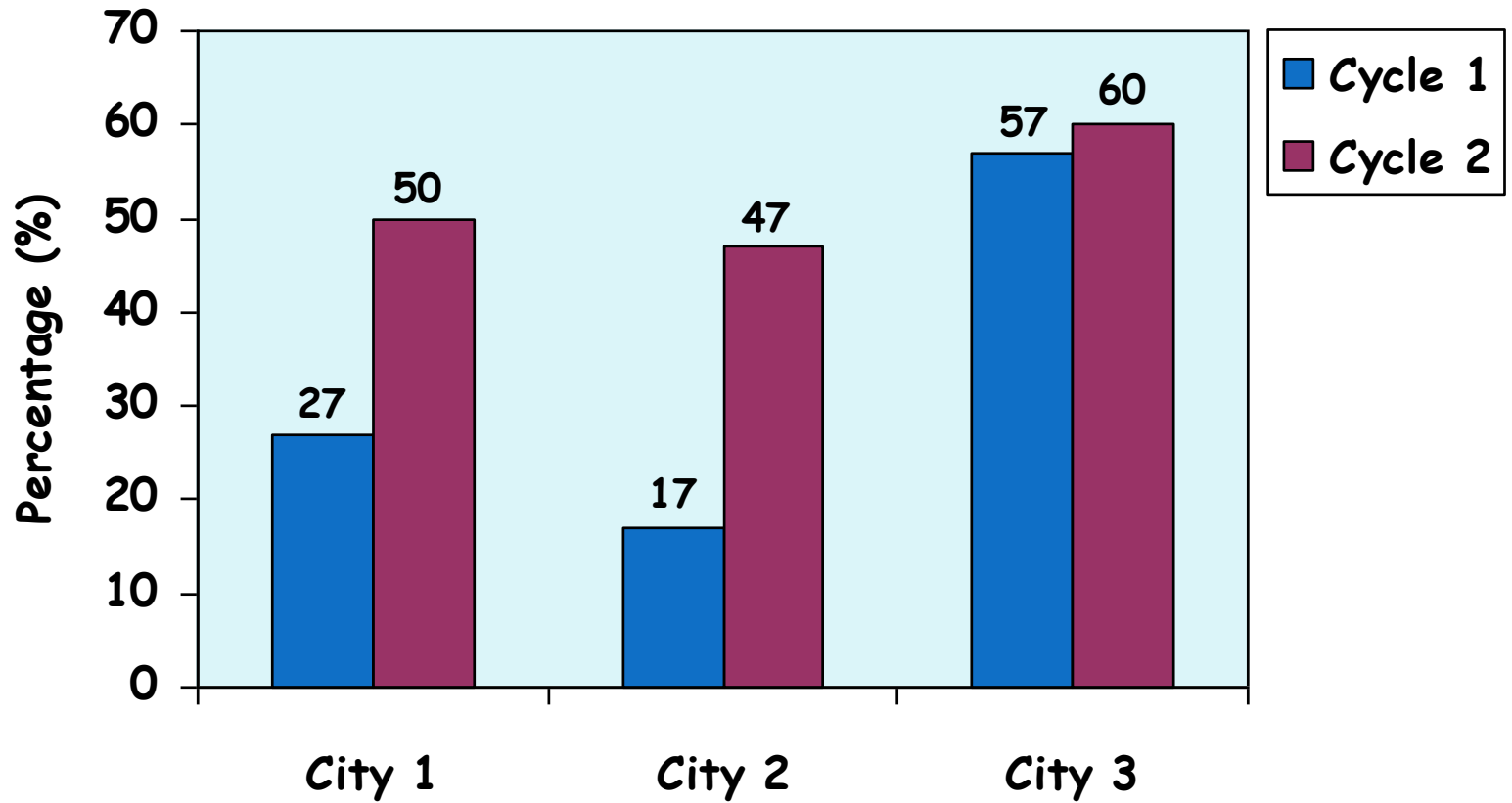
- Results were disseminated at local clinical governance and regional audit meetings
- Inclusion of AAPD, FGDP(UK) clinical guidelines and BNF recommendations in departmental induction material
- Aide memoire produced and attached to prescription pad in City 1 hospital
- Re-audit

Appropriate use

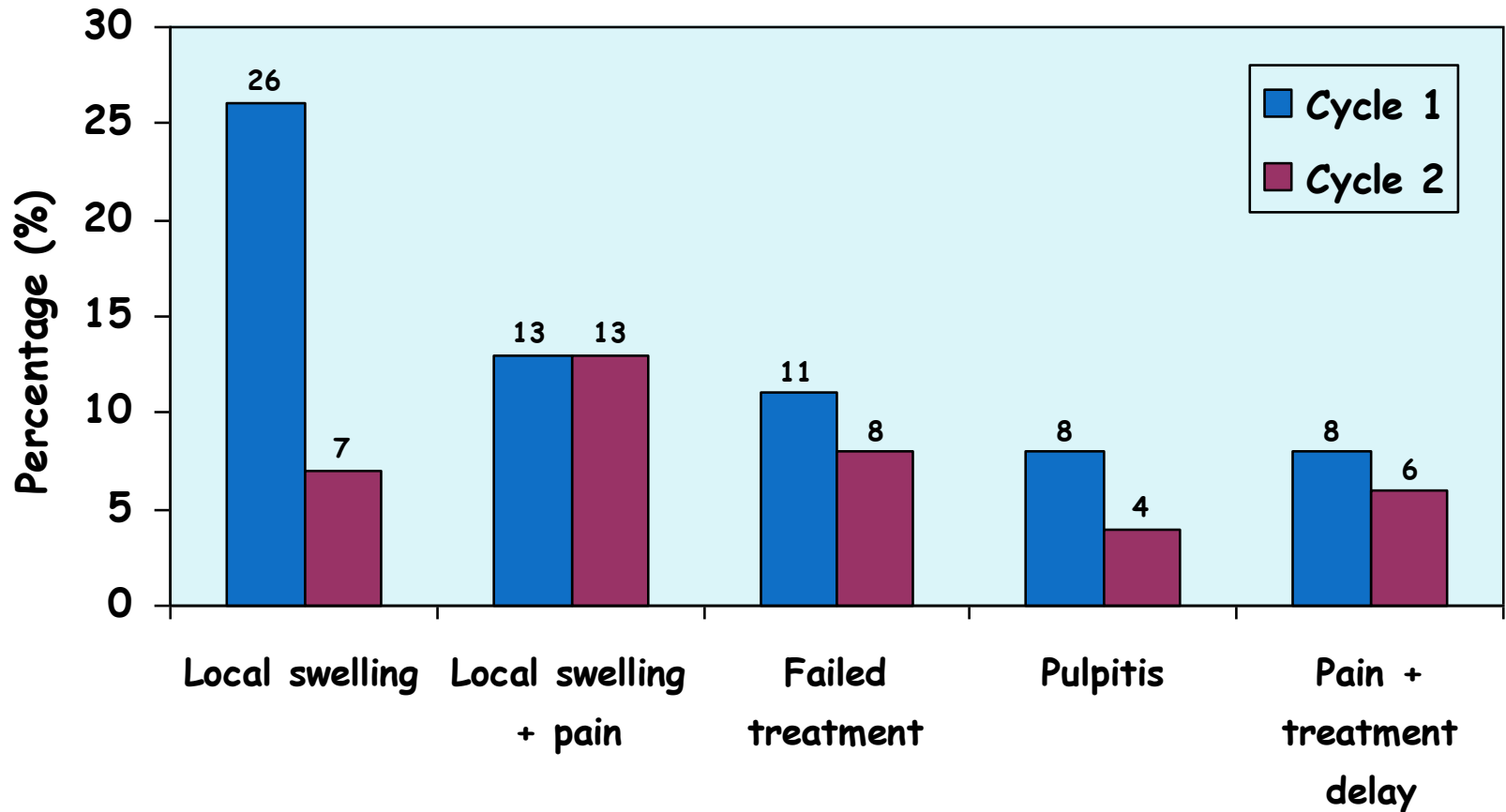
	Cycle 1 (N=89)	Cycle 2 (N=90)
Diffuse facial swelling	N=15 (17%)	N=25 (28%)
Pyrexia and local swelling	N=6 (7%)	N=5 (6%)
Open wound management	N=5 (5%)	N=15 (17%)
Following surgical intervention	N=4 (4%)	N=4 (4%)
Total	N=30 (33%)	N=47 (52%)



Appropriate use by centre

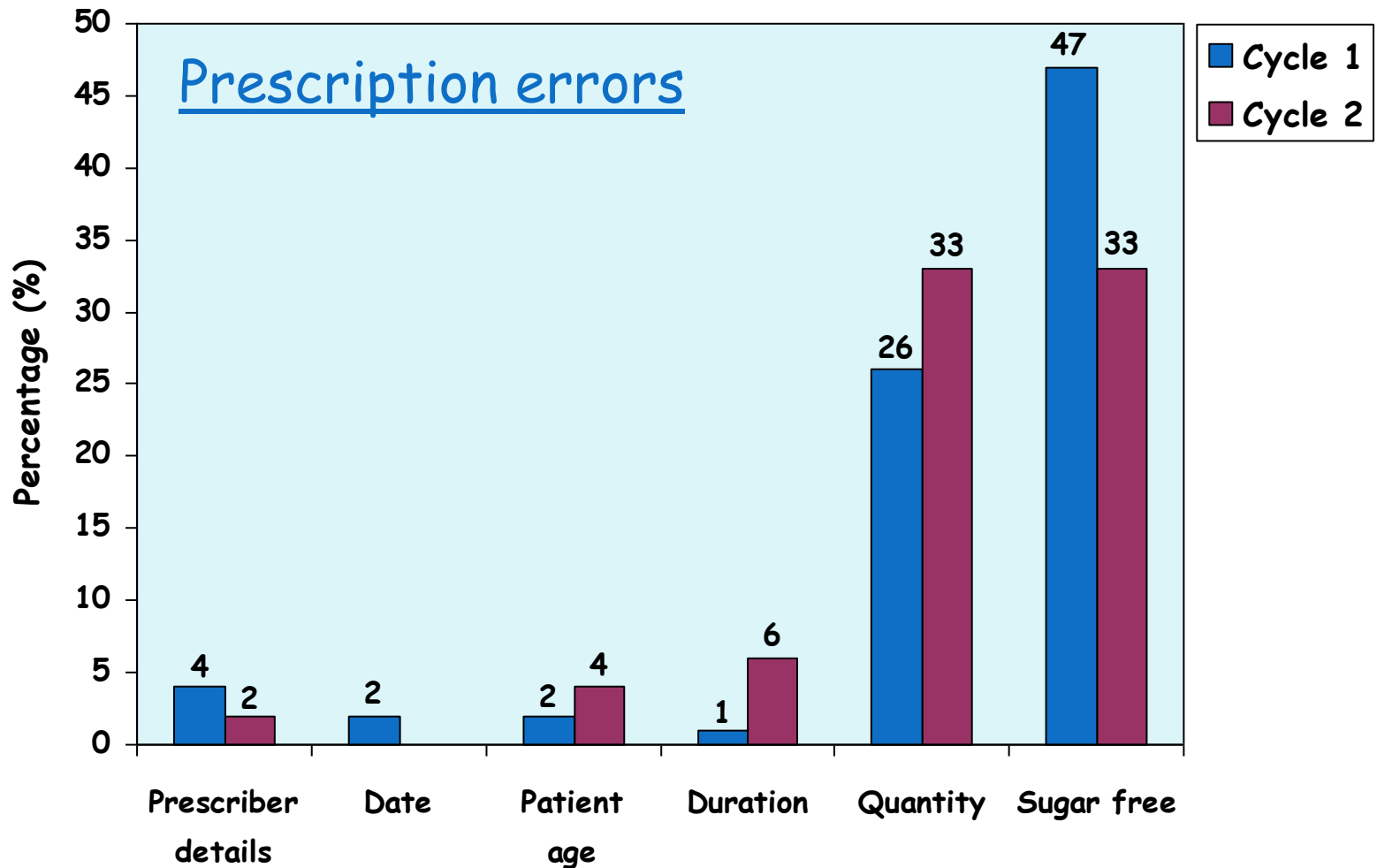


Inappropriate use



Prescription accuracy

- 46% (N=41) in cycle 2 compared with 51% in cycle 1



Results summary

↑ Prescription appropriateness from 33%-52%

↓ Prescription accuracy from 51%-46%

↑ Prescription of sugar free medicines from 53%-67%



Discussion

Chate et al., 2006

- Found with education and training:
- Appropriate prescribing increased from 29% to 49%
- Prescribing accuracy increased from 57% to 78%

- Room for further improvement

- Most common inappropriate reason for prescribing antibiotics was local swelling without systemic involvement

- Errors in prescription writing occur frequently

Conclusions

- Audit highlighted prescribing deficiencies in the 3 departments
- Audit findings comparable with previous studies
- Overall improvement in number of appropriate prescriptions and sugar free prescriptions
- Prescription accuracy continues to be a problem
- Planned 3rd Audit cycle

References

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Thank you
