A Non-Operative Approach to Children With Caries

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Browning, Montana
- I have served at this facility for 19 years.
- Approximately 11,600 patients served; ~ 1250 under 5 yo.
- Dr. James Cannava, Pediatric Dentist, works with me on this initiative and has provided valuable expertise.
Our Approach to Managing Young Children with Caries Has Been…

- IHS ECC Initiative from 2010 – the present with an emphasis on primary prevention, including: quarterly fluoride varnish treatments for children in Head Start, Early Start, sealants and interim therapeutic restorations (ITRs) on primary teeth, and preferred access for 0-5 year olds.

- We have a high level of performance on the Initiative process objectives, but...

- Our clinical experience has been: 65% of Blackfeet Reservation children ages 0-5 yrs have caries experience (35% untreated caries + 30% treated caries) prior to entering kindergarten.
When Primary Prevention Fails:
Chapter #1

The most common patterns of caries in children we see:

- Decay by age 1-3: children with very aggressive disease that starts when the teeth erupt and eventually involves most areas of the dentition.
- Despite comprehensive dental treatment on the primary dentition, first permanent molars often need complex restorations or extractions upon eruption or shortly thereafter.
When Primary Prevention Fails
Chapter #2

Approaches we have tried with very limited or no observable success:

- Not using a bottle after one year of age
- Use of fluoride varnish
- Use of xylitol gum
- Nutritional counseling
- Other ECC strategies of sealants & ITRs

Approximately 21% percent of our children require restorations and extractions under general anesthesia
Operative restorations

Primary Anteriors
- High level of success with full coverage restorations (e.g. composite crowns)
- Minimal level of success with glass ionomer protective restorations and multi-surface composites
- Teeth with large areas of decay are extracted

Primary Molars
- High level of success with stainless steel crowns
- Moderate levels of success with protective restorations and multi-surface glass ionomer restorations
Because of the Above...

- I visited Dr. Mendoza and the Warm Springs program
- My program requested permission from IHS DOH to become a beta site for the ‘Warm Springs Model’ using silver nitrate followed by fluoride varnish to treat caries.

- WE CONTINUE TO DO ALL OF THE PRIMARY PREVENTION ACTIVITIES WE HAVE ALWAYS DONE, but...

- When primary prevention fails
  - Discuss the option with parents,
  - Get written informed consent
  - Recommend a protocol of applications of SN/FV at 0 – 2 – 4 – 8 – 12 weeks
  - Schedule follow-up exams at 3 – 6 – 9 – 12 months.
Our Implementation of the Model

- We started in January, 2015
- Offer as an option primarily for children age 12 – 72 months.
- At this point we have treated 43 children, and have 3 month follow-up exams on 8 children, 6 month follow up on 3 children.
- We are using the same database and tracking system used by Warm Springs and the other sites
- This will allow us to measure and report back to our tribe the level of safety and efficacy
My Overall Impressions of Silver Nitrate to Treat Caries in Children

1. It has been well accepted by patients and families.
   → Communication and visual aids are key

2. Highly efficacious in arresting caries in the primary dentition
   → Limitations: big decay, interproximal lesions, patient compliance—patient returning for 5 visits.
   → Even delaying restorative treatment until cooperation improves or primary tooth eruption is complete can be a WIN

3. No complications other than silver nitrate can stains the hands and clinic countertops if not careful
My 3 month Follow-up Data
(n=8 patients)

Due to limited # of patients examined, data is not significant. However, subjectively, results have been uniformly positive.
Conclusion

Using the Warm Springs Model Is a Win-Win Situation

- It’s a valuable tool to have in our armamentarium
- We do fewer protective restorations, extractions and stainless steel crowns (but still do plenty)
- Staff and patient & family acceptance has been excellent
Two Stories

- Dee the “Credible Data” fanatic insisted I tell you two short anecdotes:
Thank you...