



**DENTAL CARE FOR
CHILDREN WITH SPECIAL HEALTHCARE NEEDS**

**How Do I Find What I Need to Know and
Can I See This Child in My Office?**

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10th Annual Ava Roberts Advanced Pediatric Dentistry Seminar

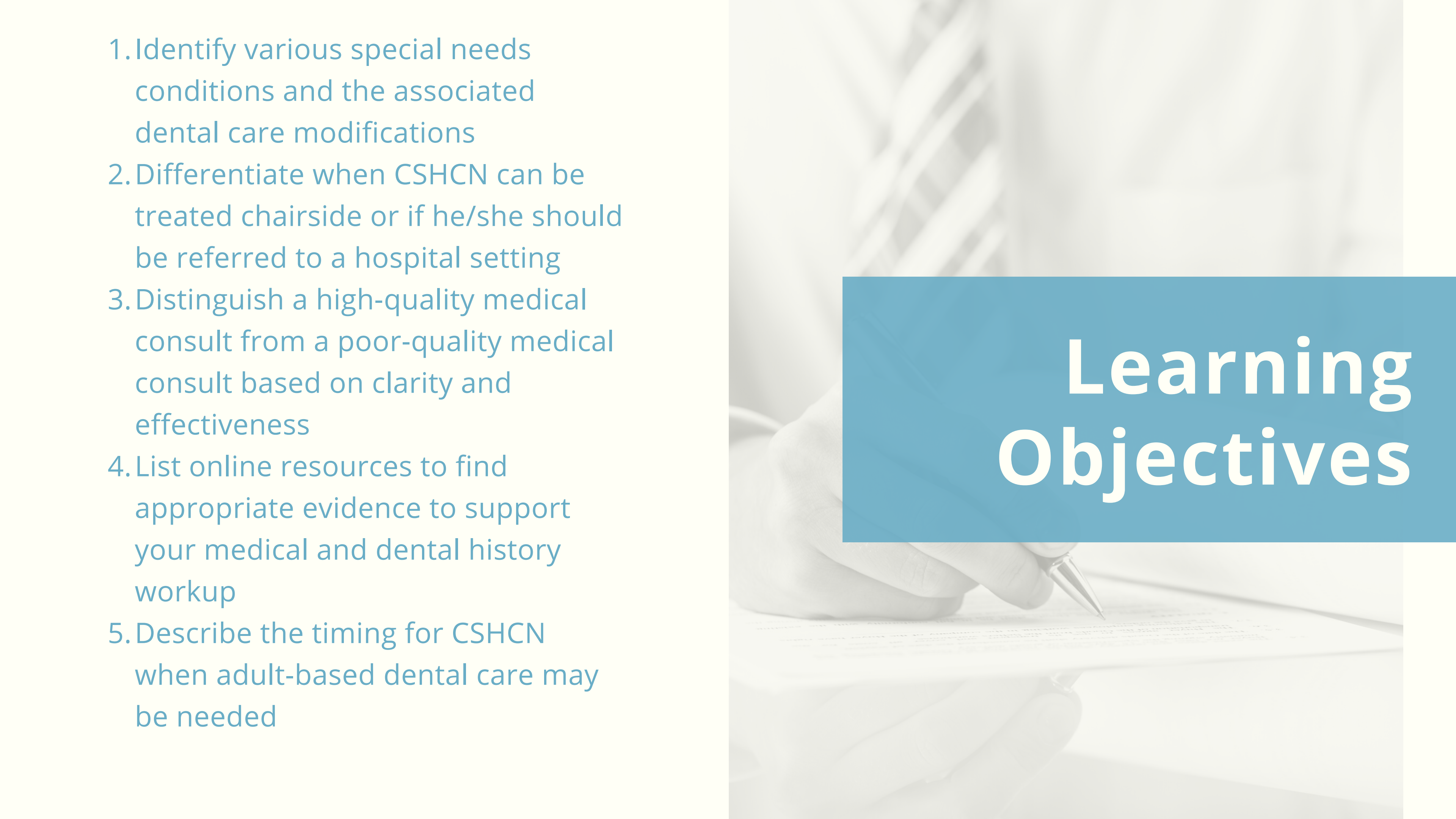
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The Why

A story about my
patient
with
Sickle Cell Anemia

1. Identify various special needs conditions and the associated dental care modifications
2. Differentiate when CSHCN can be treated chairside or if he/she should be referred to a hospital setting
3. Distinguish a high-quality medical consult from a poor-quality medical consult based on clarity and effectiveness
4. List online resources to find appropriate evidence to support your medical and dental history workup
5. Describe the timing for CSHCN when adult-based dental care may be needed



Learning Objectives

Special Needs Condition Categories

■

COGNITIVE

Autism

■

PHYSICAL

Cerebral Palsy

■

MEDICALLY

COMPLEX

Sickle Cell Disease



AUTISM SPECTRUM DISORDER

- One or more
- Vary in severity

1. SOCIAL COMMUNICATION & INTERACTION

- (1) Social reciprocity ~ how child responds & reciprocates
- (2) Joint attention ~ wanting to share an interest
- (3) Nonverbal communication ~ using or interpreting
- (4) Social relationships ~ developing & maintaining friends

2. RESTRICTED or REPETITIVE behavior / interests / activities

- lining up toys, flapping hands, imitating
- fixed on certain routines (same school route)
- Restrictive thinking; specific knowledge (titanic, vacuums)

AUTISM SPECTRUM DISORDER

NEEDS SOME SUPPORT

Social communication

↳ full sentences

↳ conversation difficult

Repetitive/Restrictive

↳ difficulty switching activities

ASPERGER'S

NEEDS VERY SUBSTANTIAL SUPPORT

Social communication

↳ few words

↳ rarely interact

Repetitive/restrictive

↳ extremely resistant to change

↳ interferes with daily life

SCALE



MORE ACCURATE
& USEFUL
DIAGNOSIS

LEVEL 1

LEVEL 2

LEVEL 3

SEVERITY

Dental Modifications

SENSORY PROFILE

- Light
- Sound
- Touch
- Texture/Taste
- Smell
- Pain
- Temperature

COMMUNICATION

- Social Stories
- Video Modeling

INTERDISCIPLINARY CARE

- Ask what other providers do

When Do You Refer to a Hospital Facility?



Cognitive Disability Clinical Takeaways

■

ADJUST THE
OPERATORY
FOR SENSORY
ISSUES

■

COMMUNICATE
AT AN
APPROPRIATE
LEVEL

■

REFER DUE TO
BEHAVIOR AND
COOPERATION



CEREBRAL PALSY ~ "brain disease causing paralysis"

CLASSIFICATION - by type of movement

SPASTIC ~ 70% cases

↳ tight / stiff muscles

↳ Can't inhibit = [OVER-EXCITED]

HYPERTONIA

abnormal increase

muscle activity



"TOE-WALK"
CALVES FLEXED

ACHILLES
TENDON



"SCISSOR GAIT"

Adductor muscles
flexed

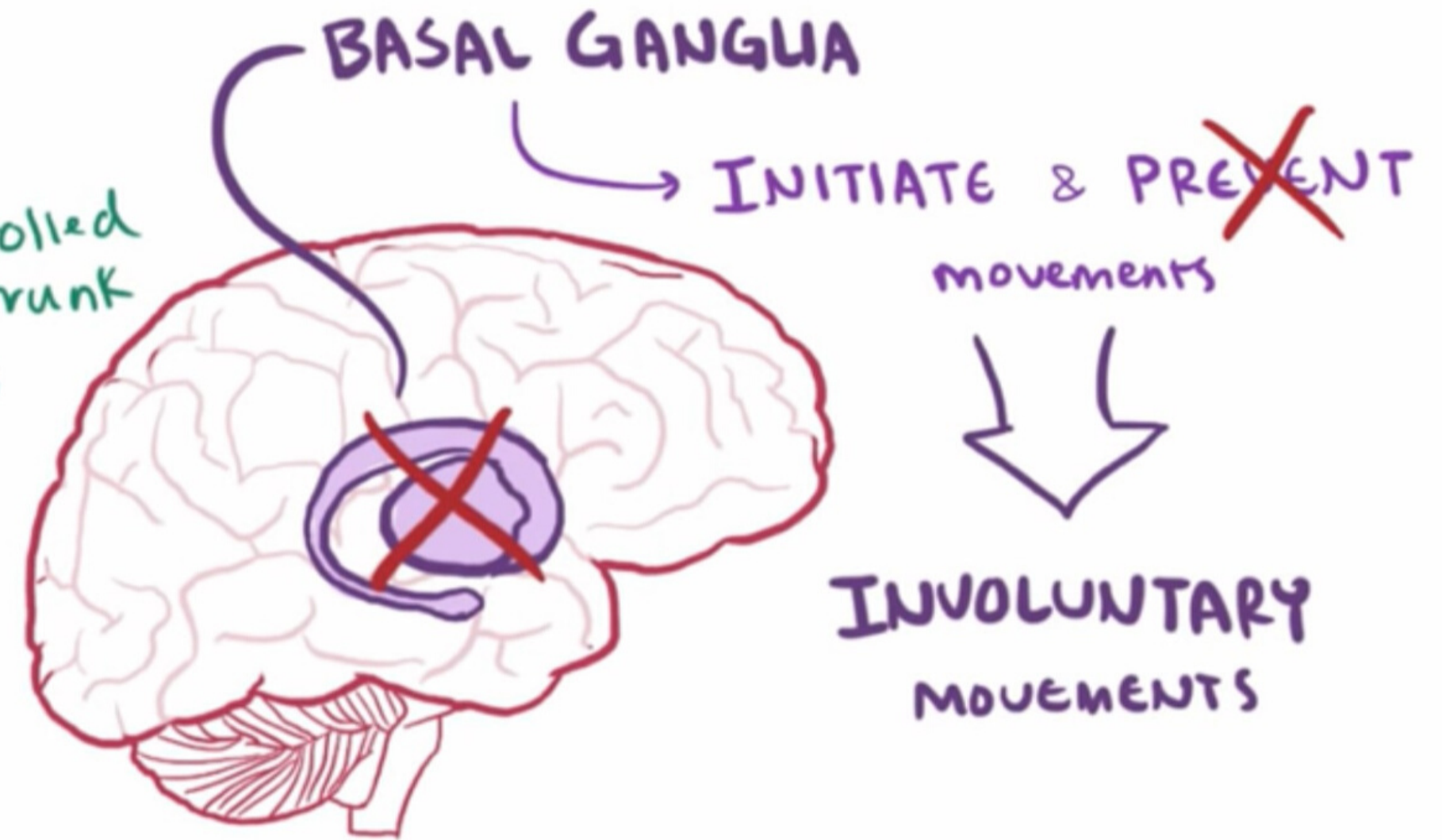
CEREBRAL PALSY ~ "brain disease causing paralysis"

CLASSIFICATION - by type of movement

DYSKINETIC (ATHETOID)

↳ Dystonia ~ random, slow, uncontrolled movements in limbs/trunk

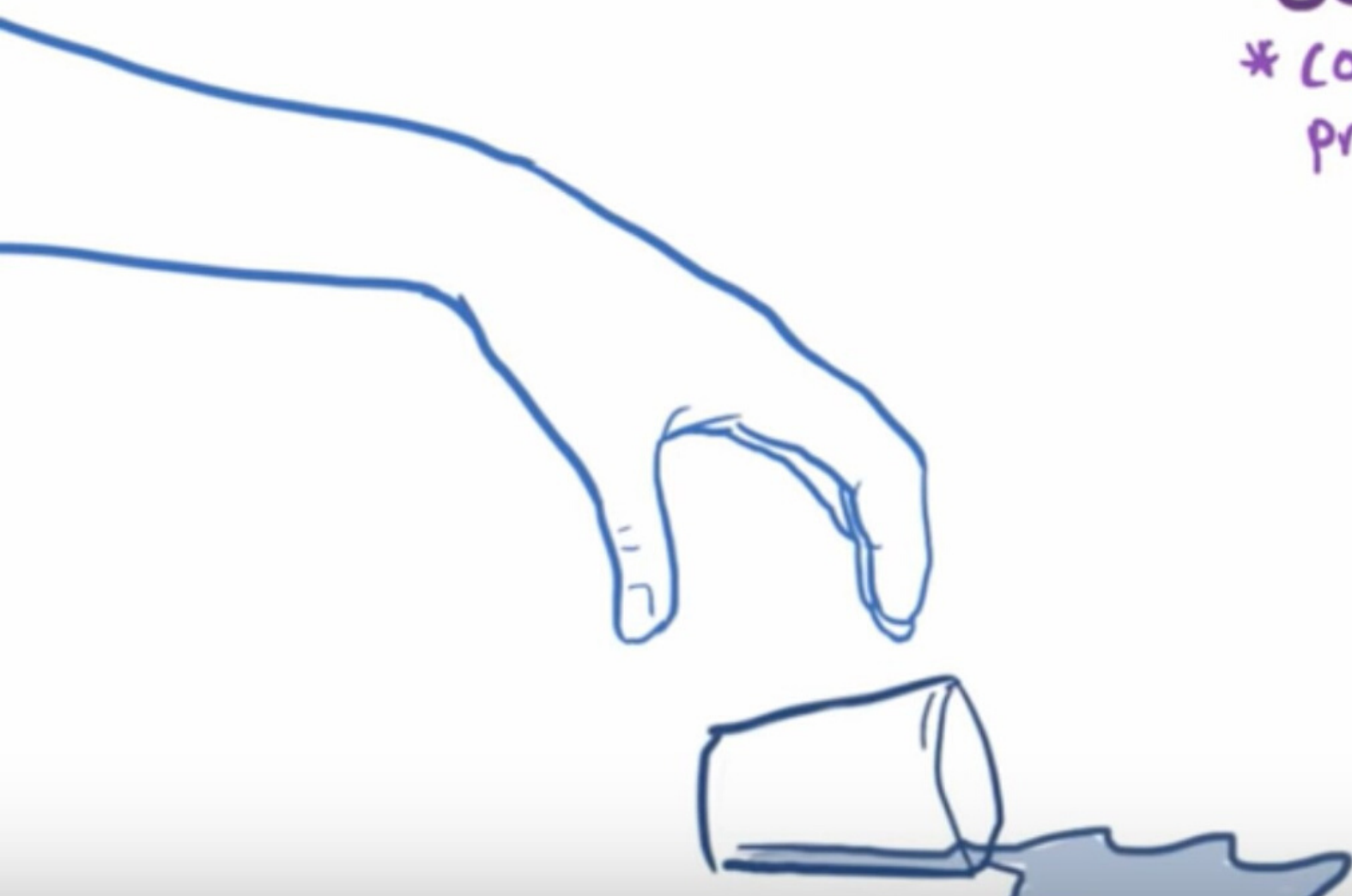
↳ Chorea ~ random, "dance-like" movements



CEREBRAL PALSY ~ "brain disease causing paralysis"

CLASSIFICATION - by type of movement

ATAXIC ~ shaky or uncoordinated
without order



CEREBELLUM
* coordination & precise movements



Dental Modifications

POOR SWALLOW RESPONSE

- Evaluate risk for aspiration -> history of pneumonia
- Wheelchair/dental chair - avoid leaning back all the way
- High speed suction

COGNITION AND COMMUNICATION

- Obtain cognitive level
- Communicate appropriately

INTERDISCIPLINARY CARE

- Ask what other providers do

When Do You Refer to a Hospital Facility?



Physical Disability Clinical Takeaways

ONLY PERFORM
DENTAL
PROCEDURES
SAFE FOR A
POOR SWALLOW
RESPONSE

COMMUNICATE
AT AN
APPROPRIATE
LEVEL

REFER DUE TO
PROVIDE SAFE
TREATMENT IF
SIGNIFICANTLY
PHYSICALLY
IMPAIRED



SICKLE CELL DISEASE

* autosomal recessive *

HEMOGLOBIN



β -GLOBIN

MISSHAPEN



SICKLES when Deoxygenated

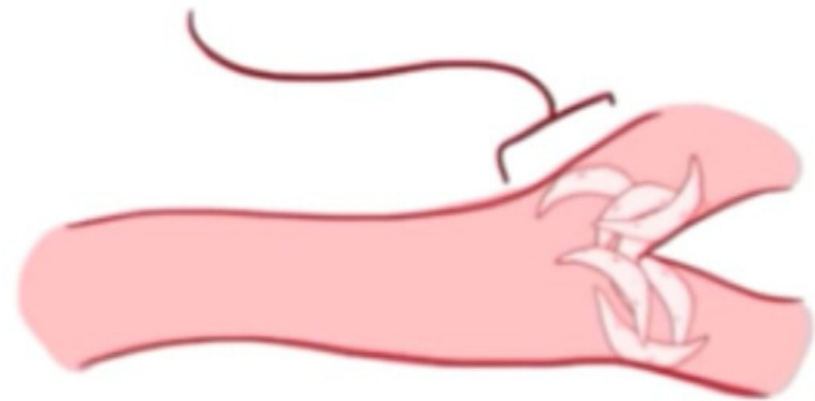


PREMATURE DESTRUCTION



VASO-OCCLUSION

VASO-OCCLUSION



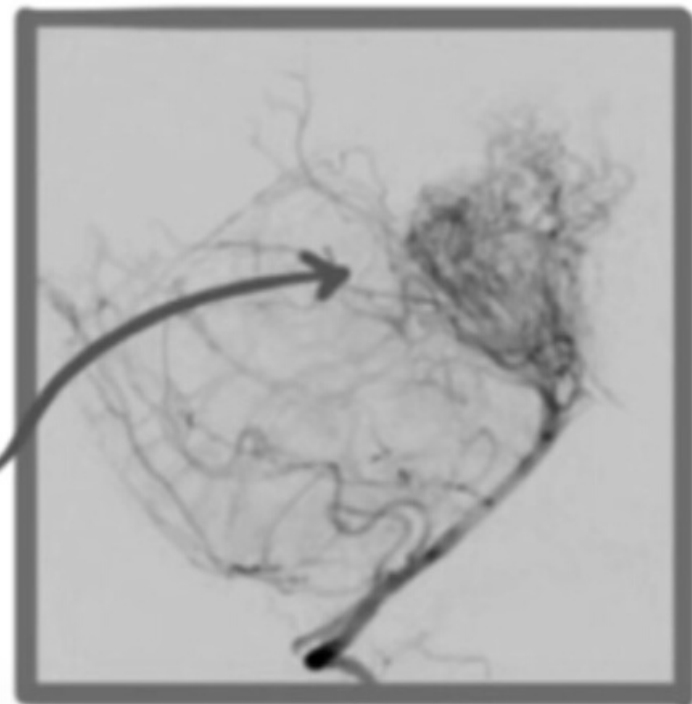
RENAL PAPILLAE

NECROSIS

BLOOD [HEMATURIA]
+
PROTEIN [PROTEINURIA]

CEREBRAL VASCULATURE

- * STROKE
- * MOYA-MOYA



"PUFF OF SMOKE"
↳ COLLATERAL VESSELS

BLOOD VESSELS of LUNGS

- * ACUTE CHEST SYNDROME

low in oxygen
HYPOXIC
VASOCONSTRICTION
vessel

DEOXYGENATED RBCs

BLOCKS OTHER RBCs

TREATMENT

* IMPROVED
with OXYGEN
& FLUIDS

* HYPOXIA
* DEHYDRATION
* ACIDOSIS



- * OPIOIDS ~ manage pain
- * ANTIBIOTICS ~ underlying bacterial infection from acute chest syndrome
- * **BLOOD TRANSFUSION**
 - ↳ RISK OF **IRON OVERLOAD** & **ANTIBODIES** against **FUTURE TRANSFUSIONS**
- * **CHILDREN** → **PENICILLIN & POLYSACCHARIDE VACCINE**
 - ↳ prevent **SEPSIS & MENINGITIS**

Dental Modifications

CRISIS TRIGGERS

- Pain/Infection - Antibiotics/Dental Care
- Stress/Anxiety - Nitrous Oxide/Sedation

MEDICAL CONSULTATION

- Risk for crises
- Timing of blood transfusions
- Antibiotics
- Risk of Infection / Relevant Labs

When Do You Refer to a Hospital Facility?



Medically Complex Clinical Takeaways

MANAGE
TRIGGERS THAT
EXACERBATE
MEDICAL ISSUE

CONSULT WITH
MEDICAL TEAM
AS THE DENTAL
EXPERT

REFER TO
MEDICAL
FACILITY FOR
HIGH LEVEL
SUPPORT/
MONITORING

A hand is shown writing on a medical prescription form. The form has the word 'PRESCRIPTION' printed on it. The background is a light, neutral color.

Medical Consultations

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KEYS TO AN
EFFECTIVE
CONSULTATION

■

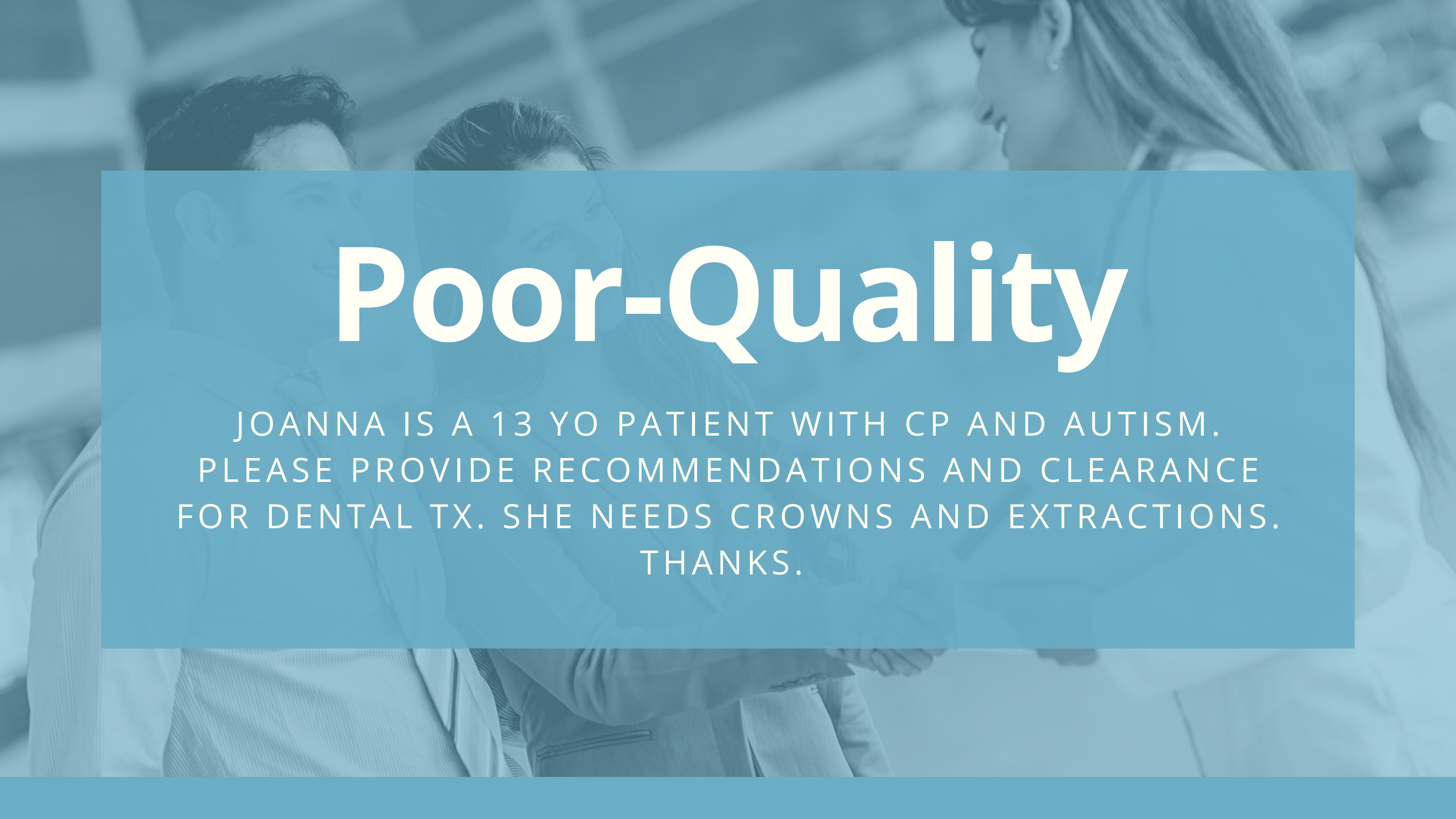
POOR-QUALITY
CONSULTATION

■

HIGH-QUALITY
CONSULTATION

Keys to an Effective Medical Consultation

1. Determine the question
2. Establish urgency
3. Look for yourself
4. Be as brief as appropriate
5. Be specific and thorough
6. Provide contingency plans and discuss their execution
7. Thou may negotiate joint title to they neighbor's turf
8. Teach with tact and pragmatism
9. Talk is essential
10. Follow-up daily



Poor-Quality

JOANNA IS A 13 YO PATIENT WITH CP AND AUTISM.
PLEASE PROVIDE RECOMMENDATIONS AND CLEARANCE
FOR DENTAL TX. SHE NEEDS CROWNS AND EXTRACTIONS.
THANKS.

High-Quality

WE HAVE A MUTUAL PATIENT, J.B., DOB: X/XX/XXXX WHO PRESENTED TO OUR DENTAL CLINIC, BUT HAVE AN UNCLEAR MEDICAL HISTORY FROM THE MOTHER. SHE HAS URGENT DENTAL NEEDS WITH CAVITIES ON HER BACK TEETH AND A HISTORY OF TOOTH PAIN. ROUTINE DENTAL TREATMENT IS INDICATED, WHICH INCLUDES FILLINGS AND EXTRACTATIONS. BECAUSE OF THE HISTORY OF CEREBRAL PALSY, MY MAIN CONCERNS ARE REGARDING HER SWALLOW RESPONSE AND RISK FOR ASPIRATION. MY CURRENT DENTAL PLAN MILD SEDATION WITH NITROUS OXIDE AND OXYGEN (WITH NO LESS THAN 70% OXYGEN), LOCAL ANESTHESIA (2% LIDOCAINE WITH 1:100,000 EPI). PLEASE ADVISE IF THERE ARE MEDICAL CONCERNS WITH THIS TREATMENT PLAN. AN ALTERNATIVE TREATMENT PLAN OF DENTAL CARE UNDER GENERAL ANESTHESIA. THANK YOU. I AM AVAILABLE FOR DISCUSSION AT (XXX) XXX-XXXX.



Transitioning to Adult-Based Dental Care

■

“ADULT DENTAL
NEEDS” BEYOND
THE SCOPE OF
PEDIATRIC CARE

■

PATIENTS
OUTGROW
DENTAL
EQUIPMENT

■

PEDIATRIC
DENTISTS NEED
THE CAPACITY
TO PROVIDE
CARE FOR
CHILDREN

When to Transition?

There is no robust evidence for best practices to transfer and transition patients with special needs from pediatric to adult centered dental care.

Transition should be a process – not a single point between patient and dentist.

Online Resources

SEARCH

- Pubmed
(<https://www.ncbi.nlm.nih.gov/pubmed/>)
- Google Scholar
(<https://scholar.google.com/>)

DATABASES

- Genetics Home Reference - NIH
(<https://ghr.nlm.nih.gov/>)

PHONE APPS

- Medscape
- Epocrates
- Lexicomp
- UptoDate

FOUNDATION PAGES

- Ectodermal Dysplasia
(<https://www.nfed.org/>)
- NORD
(<https://rarediseases.org>)

Takeaways?

References

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3. da Fonseca M, Oueis HS, Casamassimo PS. Sickle cell anemia: a review for the pediatric dentist. Pediatr Dent. 2007;29(2):159-169.
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Thank you!

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