

The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The main title is centered in the upper half of the slide.

# DIAGNOSIS AND MANAGEMENT OF AD(H)D IN CHILDREN

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PEDIATRIC PRECEPTOR, SWEDISH FAMILY MEDICINE FIRST HILL

# ADD PRESENTATIONS

- INATTENTIVE
- HYPERACTIVE, IMPULSIVE
  - MORE PREVALENT IN YOUNG BOYS, KG–GRADE 2
  - EVOLVES INTO PREDOMINANTLY INATTENTIVE SYMPTOMS
  - COMBINED TYPE

HALLMARK IS INATTENTION, DISTRACTIBILITY

# CASE #1: VICTOR

- 4.5-YEAR-OLD, LONG-STANDING OVERACTIVITY, EMOTIONAL LABILITY, ANGER, AGGRESSION, POOR SOCIALIZATION
- PARENTAL DISCORD, HARSH DISCIPLINE, HISTORY OF CHILD ABUSE
- INITIAL APPROACH: COUNSELING, ENVIRONMENTAL INTERVENTIONS×6 MONTHS

## VICTOR (CONTINUED)

- SUSPENDED FROM 3 PRESCHOOLS
- SIGNIFICANT INATTENTION AND DISTRACTIBILITY, *NOT EXPLAINED BY ALTERNATE MENTAL HEALTH DIAGNOSIS*
- **IMPROVED BY BEHAVIOR ORIENTED PRESCHOOL, PARENTAL PSYCHOTHERAPY, INITIATION OF SHORT ACTING STIMULANTS.**

# INATTENTION MAY BE SUBLIMINAL

- “QUIET STUDENT”, SLOW LEARNER
- SYMPTOMS ARE PROGRESSIVELY “UNMASKED” AS DEMANDS INTENSIFY
  - GRADE 1–2: INCREASING CHALLENGE FOR ATTENTION, ORGANIZATION
  - GRADE 3–5: INCREASE COGNITIVE DEMANDS
  - MIDDLE SCHOOL: INCREASED SOCIAL DISTRACTIONS, IMMATURITY
  - HIGH SCHOOL, COLLEGE: INCREASE COGNITIVE DEMANDS; ORGANIZATION!!

## CASE #2: CHELSEA

- OUTSTANDING ACADEMIC PERFORMANCE AT A CHALLENGING PRIVATE SCHOOL
- UNRECOGNIZED STRUGGLE TO COMPLETE ASSIGNMENTS:
  - THREE-HOUR HOMEWORK ASSIGNMENT ROUTINELY TAKES 6 HOURS
  - FREQUENTLY DOING HOMEWORK UNTIL EARLY MORNING 1 AM–3 AM
  - “PEOPLE JUST SAY TRY HARDER. I WORK HARDER THAN ANYBODY I KNOW...”


# ADD INTERVIEW

- PATIENT DESCRIPTION OF THEIR STRUGGLES: INATTENTION, DISTRACTIBILITY
- ORGANIZATIONAL DIFFICULTIES
- IS THIS A GOOD SCHOOL FOR YOU?
- HOW ARE YOU GETTING ALONG WITH THE OTHER STUDENTS? TEASING, BULLYING?
- HOW ARE YOU GETTING ALONG WITH TEACHERS? TEACHING STYLE?
- WHAT CHANGE WOULD MAKE YOUR SCHOOL A BETTER SCHOOL FOR THE STUDENTS?



# ADD HISTORY

## ESTABLISH THAT YOU ARE INTERESTED IN THE STUDENT

- WHICH SUBJECTS YOU FIND INTERESTING?
  - INTERESTS OUTSIDE OF SCHOOL: MUSIC, ART, DANCE, DRAMA, SPORTS, CLUBS, CHURCH...
  - ARE YOU AWARE OF CONCERNS FROM YOUR TEACHERS AND FAMILY?
  - DO YOU FEEL YOU SPEND LONGER ON YOUR STUDIES COMPARED TO OTHER STUDENTS?
  - IS SCHOOL WORK FRUSTRATING, DISCOURAGING?
- 



# HISTORY FROM PARENTS

- ASK PERMISSION TO SPEAK SEPARATELY WITH PARENTS (CONTROL)
- HAVE DIFFICULTIES BEEN EVIDENT OVER TIME: TEACHER CONFERENCES, REPORT CARDS
- WHAT INTERVENTIONS HAVE BEEN USED? ACCOMMODATIONS, INDIVIDUAL ASSISTANCE
- DO DIFFICULTIES IMPACT FAMILY AND SOCIAL FUNCTION?

# STANDARD APPROACH: OBJECTIVITY

- GATHER OPINION FROM VARIOUS OBSERVERS: PARENTS, COACHES, TRUSTED TEACHERS
- USE VALIDATED QUESTIONNAIRES: VANDERBILT, CONNERS
- SHORTCOMING: VANDERBILT DEVELOPED FOR USE IN 5–12-YEAR-OLDS; THERE ARE SEPARATE PARENT AND TEACHER ASSESSMENTS, BUT NOT A STUDENT FORM
- INCLUDES ACADEMIC ASSESSMENT FROM TEACHERS
- INCLUDES ORGANIZATIONAL SKILLS
- INCLUDES OPPOSITIONAL DEFIANCE, ANXIETY, SOCIALIZATION, DEPRESSION

# COMPREHENSIVE EVALUATION

## 4 CATEGORIES

- MEDICAL
- EDUCATIONAL: INDIVIDUAL ASSISTANCE, ACCOMMODATIONS, ADJUST EXPECTATIONS, ASSESS HOMEWORK REQUIREMENTS (ALL ASSIGNED WORK DONE AT SCHOOL), POOR ORGANIZATION (“FAIL SAFE” SYSTEMS)
- PSYCHOLOGICAL: FRUSTRATION, DISCOURAGEMENT, LOW SELF-ESTEEM, DEPRESSION, ANXIETY, SOCIALIZATION
- NEUROLOGIC: NEURO BIOLOGIC ENTITY; NOT BEHAVIORAL

# GENETICS OF ADD

- 4–8 % OF ALL CHILDREN
- PARENTAL INFLUENCE: ONE PARENT ADD—25%; BOTH PARENTS—50%
- ASSOCIATED CONDITIONS: TUBEROUS SCLEROSIS—50%; AUTISTIC SPECTRUM—25%

# TREATMENT OF ADD

- MEDICINE IS THE MOST POWERFUL TOOL
- DIAGNOSIS LIMIT IS 4YO.
- INITIAL TREATMENT IS 4.5-YO
- *STIMULANTS ARE MOST EFFECTIVE*
- USE IMMEDIATE RELEASE < 6YO
- TRANSITION TO EXTENDED RELEASE: MORE EFFECTIVE; DEMANDS EXTENDED
- DURATION OF EFFECT/METABOLISM: UNPREDICTABLE: COMBINE ER + IR (MID, HS, COLLEGE)

# TITRATION OF STIMULANTS

- TARGET DOSAGE IS NOT WEIGHT-BASED OR AGE-BASED
- TITRATION OVER 3–4 WEEKS: LOW, MIDDLE, MODERATE, OFF
- USE MEDICATION 5 DAYS/WEEK: 5+10+15 (INSURANCE ALLOWS #30 PILLS/MONTH)
- BENEFIT IS EVIDENT ON DAY #1 IF CHALLENGE IS ADEQUATE: NO BUILDUP
- DURATION OF ACTION IS NOT SIGNIFICANTLY LONGER AT HIGHER DOSAGE

# CHOICE OF STIMULANTS

- MPH: METHYLPHENIDATE (RITALIN, CONCERTA)
- ADD: MIXED AMPHETAMINE SALTS (ADDERALL)
- AMPHETAMINE PRO DRUG: LIS DEXAMPHETAMINE (VYVANSE)
- MPH DERIVATIVE: DEXMETHYLPHENIDATE ( FOCALIN)

# STIMULANTS: SPECIAL CONSIDERATIONS

- MPH TABLETS: RAPID METABOLISM( 2. 5–4 HRS)—*SHORT-ACTING SUPPLEMENTAL DOSAGE*
- EXTENDED DURATION(10–12 HRS): CONCERTA; XR PREPARATIONS; VYVANSE PRODRUG
- PATIENT WITH (+) BENEFIT BUT SIGNIFICANT SE'S: IR MAY BE A MORE TOLERABLE OPTION
- CARDIAC RISK: FAM HX EARLY STROKE, EARLY HEART ATTACK, OR SUDDEN DEATH <40YO
- PROGNOSIS: 50% CONTINUED BENEFIT; 25% OUTGROW; 25% TRANSITION



# STIMULANTS: SIDE EFFECTS

- INSOMNIA: SYMPTOM OF HYPERACTIVITY; ANXIETY?; SNORING?? (OSAS MIMIC ADD)
- HEADACHE, MIGRAINE
- ANOREXIA, ABDOMINAL PAIN, WEIGHT LOSS (SILENT?)
- EMOTIONAL LABILITY, ANGER, IRRITABILITY(ADOLESCENTS)
- EMOTIONAL SUPPRESSION, WITHDRAWAL
- ANXIETY
- TICS

# ONGOING COMMUNICATION TO PATIENTS

- PATIENT DESERVES CREDIT: MEDICATION HELPS YOU “SEE”; YOU DECIDE TO ACT (EYEGASSES)
- RECOGNIZE ACCOMPLISHMENTS: ACADEMIC AND OTHERWISE
- DEVELOP INDIVIDUAL INTERESTS
- KEY FACTOR: SUCCESSFUL MANAGEMENT OF PARENT MENTAL HEALTH
- “MEDS NO LONGER HELPFUL:” *COMPARISON TRIAL( MED–OFF–MED–OFF)*
- ALLOW PATIENT CONTROL IF REASONABLE: *WEEKENDS OFF? SHORT ACTING ON WEEKENDS?*
- PATIENT ALONE: ALLOW VENTILATION; ADDRESS ADOLESCENT–PARENT ISSUES

# ADDITIONAL CONSIDERATIONS

- NON-STIMULANT MEDICATION:
  - GUANFACINE
  - CLONIDINE
  - ATOMOXETINE (STRATTERA)
  - OMEGA-3, 6 FATTY ACIDS

GENETIC SCREENING: CYP450; CYP2D6—NOT INDICATED

# REFERENCES

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