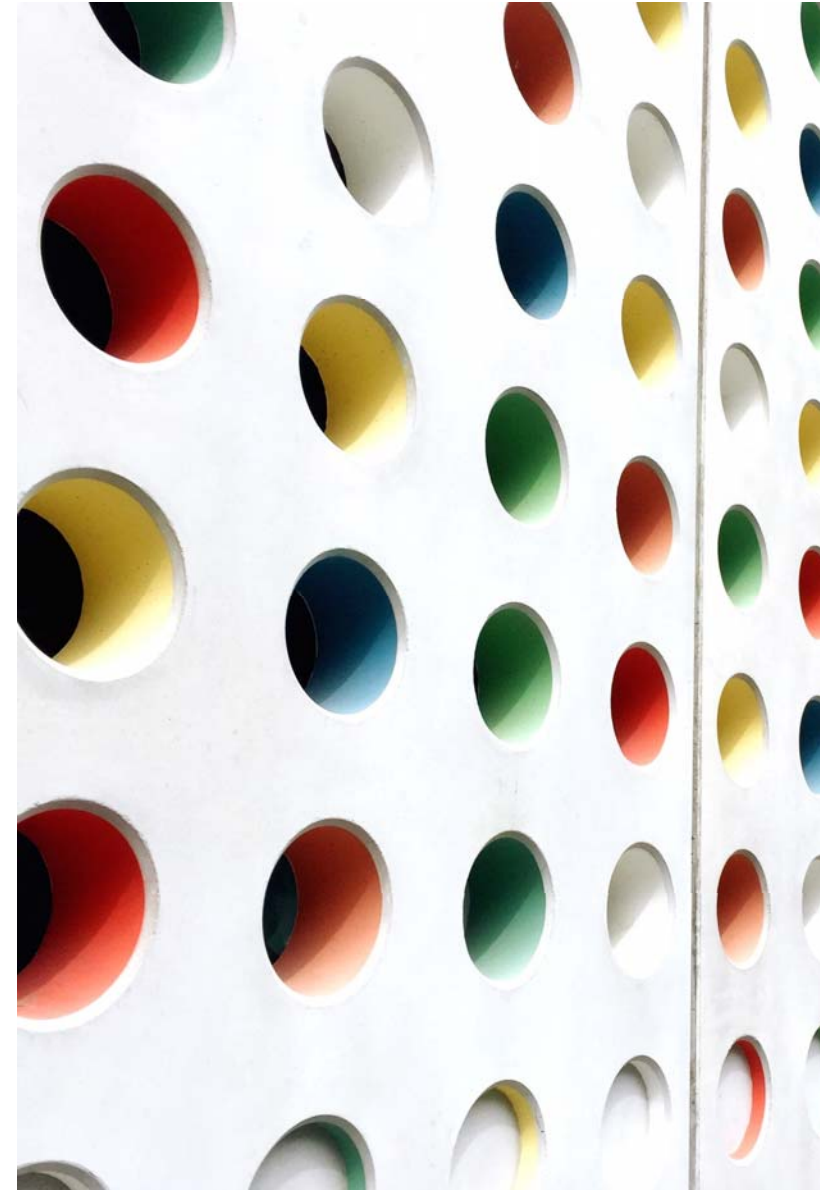


Practical Improvement in ADHD Care

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AAP Guideline 2019

THERE ARE 7 KEY ACTION STATEMENTS IN THE GUIDELINE.

HOW DO YOU OPERATIONALIZE THEM?

DIAGNOSIS

THREE KEY ACTION STATEMENTS

Key Action Statement 1

PCP SHOULD INITIATE EVALUATION FOR ADHD IN AGES 4-18 WHO PRESENT WITH ACADEMIC AND/OR BEHAVIORAL PROBLEMS AND SYMPTOMS OF HYPERACTIVITY, IMPULSIVITY AND INATTENTION.

Key Action Statement 2

CLINICIANS SHOULD USE THE DSM 5 CRITERIA TO MAKE THE DIAGNOSIS. INFORMATION SHOULD INCLUDE MULTIPLE SOURCES

DSM 5 Criteria for ADHD Diagnosis

- A 6 inattentive and or 6 hyperactive/impulsive symptoms for longer than 6 months
- B Significant symptom onset by the age of 12
- C Symptoms occur in 2 or more circumstances or areas of function
- D Symptoms adversely affect function
- E Symptoms are not better explained by some other diagnosis (or reason)

Key Action Statement 3

THE CLINICIAN SHOULD AT LEAST SCREEN FOR CO-MORBID DIAGNOSES INCLUDING **EMOTIONAL/BEHAVIORAL ANXIETY, DEPRESSION, (OCD), ODD, CD SUD DEVELOPMENTAL ASD, LD** AND **PHYSICAL TICS, OSA CONDITIONS**

Practical Tip

MANY OF THE CONDITIONS THAT MIMIC ADHD ARE THE
CONDITIONS THAT CO-OCCUR WITH ADHD

I would add PSYCHOSOCIAL

BULLYING, TEACHER/SCHOOL ISSUES, PARENTING ISSUES,
DYSFUNCTIONAL HOME/DIVORCE, SUD IN THE HOME, OTHER FAMILY
ISSUES/STRESSES, PTSD/TRUAMA/ABUSE

WELL...THAT'S A LOT AND I'M
REALLY BUSY...HOW???

TO QUOTE UNCLE SCAR

BE PREPARED



Practical Tip

QI PRO TIP

STANDARDIZE INTAKE

Consider the following for preschool and school age patients 4-13

Vanderbilt Assessments from parent/teacher(s) (includes depression, anxiety and OD screens) AAP Toolkit

FH targeted at mental health, CV, and neurological systems

SH current school academic and behavioral performance, interests/activities, family structure, home behavioral issues, social/peer relationships including bullying

MH prematurity, TBI, chronic illnesses, CV issues, neuro issues

ROS GEN sleep, appetite ENT snoring/big tonsils/OSA DERM picking, sores, hair twirling/pulling, alopecia (OC behaviors) CV palpitations, tachycardia, hypertension, syncope RESP trouble breathing, chest tightness (panic) NEURO seizures, tics, language issues PSYCH anger, aggression, inflated sense of self/grandiose/tall tales, OC behaviors, anxiety, depressed mood, mood swings

Handwriting sample

Consider the following for adolescent patients 14+

Rating scales ASRS from patient, Vanderbilt from parent/2 teachers (often negative especially in girls)
GAD7 for anxiety and PHQ 9 for depression, CRAFFT for substance use

FH targeted at mental health, CV, and neurological systems

SH current school academic and behavioral performance, interests/activities, family structure, home behavioral issues, social/peer relationships including bullying, specific nicotine, alcohol, THC and other drug use, driving history, legal issues

MH prematurity, TBI, chronic illnesses, CV issues, neuro issues

ROS GEN sleep, appetite ENT snoring/big tonsils/OSA DERM picking, sores, hair twirling/pulling, alopecia (OC behaviors) CV palpitations, tachycardia, hypertension, syncope RESP trouble breathing, chest tightness (panic) NEURO seizures, tics, language issues PSYCH anger, aggression, inflated sense of self/grandiose/tall tales, OC behaviors, anxiety, depressed mood, mood swings

Handwriting sample

Psychological/Educational
Testing
Neuropsychological Testing

NOT RECOMMENDED IN THE
GUIDELINE FOR DIAGNOSIS OF
ADHD

TESTING RESULTS WILL BE SKEWED
BY ADHD SYMPTOMS EG
WORKING MEMORY

OFTEN THERE IS NO QUESTION
ABOUT LOW IQ OR LD



Practical Tip

Screening for LD in the

HPI

ASK IF THE CHILD CAN DO GRADE LEVEL WORK ONE ON ONE

ASK FOR ACHIEVEMENT TESTS, READING/MATH BENCHMARKING

HANDWRITING SAMPLE

Practical Tip

DOCUMENTATION AND CODING



[HTTPS://WWW.AMA-
ASSN.ORG/SYSTEM/FILES/2019-
06/CPT-OFFICE-PROLONGED-
SVS-CODE-CHANGES.PDF](https://www.ama-assn.org/system/files/2019-06/cpt-office-prolonged-svs-code-changes.pdf)

NO MORE
BEAN
COUNTING

2021 E/M
CODING
BASED ONLY ON
MDM OR TOTAL
TIME

SIMPLIFY.

REVIEW THE INTAKE HANDWRITTEN NOTES OR TYPE IN ADDITIONAL NOTES

ATTACH INTAKE TO THE ENCOUNTER

SPEND YOUR TIME DOCUMENTING WHY PATIENT MEETS DSM 5 AND YOUR TREATMENT PLAN.

E/M CODING

99203/99213	99204/99214	99205/99215
NEVER USE 99203 FOR ADHD NP EVER.	2 STABLE PROBLEMS 1 PROBLEM WITH EXACERBATION OR A/E OF MEDICATION	SEVERE PROBLEM
99213 ONLY FOR RECHECK OF JUST ADHD 1 STABLE CHRONIC PROBLEM	PRESCRIPTION DRUG MANAGEMENT	NEED TO GO TO THE HOSPITAL (SUICIDE)
<45/20-29	45/30-39	60/40-54

TOTAL TIME ON THE DAY OF THE ENCOUNTER

REVIEWING RECORDS, RATING SCALES, DISCUSSING WITH OTHER PROVIDERS, COUNSELING AND EDUCATING AS WELL AS THE STRUCTURED INTERVIEW

99217

Obtain rating scales before the visit or at the visit

BCBS AL and AL MC only allow 2 per encounter

Parent Vanderbilt

Teacher Vanderbilt

PHQ 9 12 and up Screening for depression in adolescents is recommended by AAP and ADHD teens are at increased risk

GAD 7 Screen for anxiety in teens

SCARED screen for anxiety in school aged kids

All of these can be used like follow up Vandebilts in patients with co-morbidity

Practical Tip #5 ICD 10 Codes

Adverse effect of amphetamine

Adverse effect of methylphenidate

Adverse effect of SSRI

Chronic medication management

Under-dosing of amphetamine

Under-dosing of methylphenidate

MANAGEMENT

ONE KEY ACTION STATEMENT



Key Action Statement 4

ADHD SHOULD BE MANAGED LIKE CHRONIC ILLNESS/CHILD WITH SPECIAL HEALTHCARE NEEDS. REGULAR FOLLOW UP, CHRONIC CARE MODEL MEDICAL HOME MODEL

Practical Tip #4 Quarterly Follow-up

DEA allows 90-day supply

Assess performance improvement

Seasons change- baseball starts and homework tanks

Compliance

Emerging co-morbidities especially in adolescents (use RS)

Check PDMP

TREATMENT

3 KEY ACTION STATEMENTS



Key Action Statement #5

TREATMENT RECOMMENDATIONS ARE STRATIFIED BY AGE

PRESCHOOL SCHOOL-AGE ADOLESCENT

KAS 5A

PRESCHOOLERS

BEHAVIOR THERAPY IS RECOMMENDED 1ST LINE

- PPP, PCIT, The Incredible Years

BEHAVIOR THERAPY IS FOR THE PARENTS AND TEACHERS NOT THE CHILD

THE PATS FOUND THAT A WHOPPING 16% OF PARENTS FELT THAT BT FULLY ADDRESSED THEIR CHILD'S NEEDS

COMMON ELEMENTS:

1. ADHD EDUCATION
2. ACTIVE IGNORING
3. SPECIFIC PRAISE
4. SPECIFIC INSTRUCTIONS

PRACTICAL?

BARRIERS: COST, FOLLOW THROUGH (MULTIPLE SESSIONS), EVERY TEACHER/EVERY YEAR, BOTH PARENTS?, GRANDPARENTS, 2 HOUSEHOLDS, SINGLE MOMS WITH OTHER KIDS AND 2 JOBS...

THE KARATE KID FROM MY PRIMARY CARE CLINIC IN 1988 KICKED OUT OF 3RD DAY CARE ON THE DAY OF THE VISIT

PROVIDERS?

PRACTICAL.

PROVIDE MORE INFORMATION ABOUT ADHD AT INITIAL AND FOLLOW UP VISITS

- [Understood.org](https://www.understood.org) also great for LD kids

CREATE A SIMPLE ONE PAGE BT HANDOUT OUTLINING THE 3 PRINCIPALS OF BT

MODEL THE 3 PRINCIPALS OF BT AT INTIAL AND FOLLOW UP VISITS AND NAME WHAT YOU'RE DOING FOR THE PARENT

IDENTIFY PROVIDER(S) IN YOUR AREA

STIMULANTS MEDICATION IN PRESCHOOLERS

MPH found to be safe and effective in preschoolers in at least 2 studies but not FDA approved under 6

MPH is the medication recommended by the AAP. AMP meds acknowledged as FDA approved but not as well studied

Slightly lower effect size and slightly higher A/E –appetite, sleep, mood (especially rebound)

No mention of non-stimulants for use in preschoolers in the Guideline

Methylphenidate CD

WHAT I USE

COVERED SMOOTH SPRINKLE SCHOOL DAY 6-8 HOURS

KAS 5B

SCHOOL-AGE

BT Recommended

Other non-pharmacological treatments are not recommended

FDA approved medication –in this order Effect size of stimulants is 1.0

- Stimulants
- Atomoxetine
- Guanfacine
- Clonidine

KAS 5c

ADOLESCENTS

FDA approved medication in the same order as school-aged children

School skills training over long period has demonstrated benefit

BT- evidence base for efficacy falls by age Involving the adolescent in the sessions in a collaborative/motivational interviewing approach seems to help more but results are mixed.

Educational supports 504/IEP plans

BEFORE BEGINNING TREATMENT ASSESS FOR SUBSTANCE USE.

REGULAR THC USE AND STIMULANTS DON'T MIX!

From the AAP Guideline

Some **nonmedication treatments for ADHD-related** problems have either too little evidence to recommend them or have been found to have little or no benefit. These include mindfulness, cognitive training, diet modification, EEG biofeedback, and supportive counseling. The suggestion that cannabidiol oil has any effect on ADHD is anecdotal and has not been subjected to rigorous study. Although it is FDA approved, the efficacy for external trigeminal nerve stimulation (eTNS) is documented by one 5-week randomized controlled trial with just 30 participants receiving eTNS.⁹⁰ To date, there is no long-term safety and efficacy evidence for eTNS. Overall, the current evidence supporting treatment of ADHD with eTNS is sparse and in no way approaches the robust strength of evidence documented for established medication and behavioral treatments for ADHD; therefore, it cannot be recommended as a treatment of ADHD without considerably more extensive study on its efficacy and safe

PHARMACOGENETICS

Because of the large variability in patients' response to ADHD medication, there is great interest in pharmacogenetic tools that can help clinicians predict the best medication and dose for each child or adolescent. At this time, however, the available scientific literature does not provide sufficient evidence to support their clinical utility given that the genetic variants assayed by these tools have generally not been fully studied with respect to medication effects on ADHD-related symptoms and/or impairment, study findings are inconsistent, or effect sizes are not of sufficient size to ensure clinical utility.^{104–109} For that reason, these pharmacogenetics tools are not recommended.

Stimulant Medication

Effect size for stimulants is 1.0 and for nonstimulants is 0.7.

“An individual’s response to methylphenidate versus amphetamine is idiosyncratic, with approximately 40% responding to both and about 40% responding to only 1. The subtype of ADHD does not appear to be a predictor of response to a specific agent.” -AAP Guideline

<http://www.adhdmedicationguide.com/>

KAS 6 Dose Titration

Titrate to the dose that provides symptom remission (or as close as possible) with tolerable A/E

MTA study: Community Care group treated by PC- individuals were on less medication with lower remission rates than the study (dose titration) group.

Can titrate dose every 3 to 7 days

Practical Tip #8

5 Ds of Stimulant Medication optimization

Drug MPH or AMP

Dose

Delivery system LOOK AT PK data

Duration of action

Daily

Practical Tip #8 Drug

PRESCHOOL AND SCHOOL-AGE MPH

ADOLESCENTS AMP

TITRATE THEN SWITCH

Practical Tip #8 Dose

Not based on mg/kg, age, severity but rather metabolism of the particular molecule

I titrate to significant side effects, the FDA approved max (though I will treat with higher doses) or the following mg/k figures BEFORE switching classes.

MPH 2 mg/k

D-MPH 2mg/k

Lis-dextroamphetamine 2 mg/k

Amphetamine salts 2 mg/k or equivalent for newer delivery systems

Practical Tip #8

Delivery System

PK DATA MATTER BUT EVERY CHILD'S EXPERIENCE WILL VARY

REMEMBER THAT THE PK DATA IN THE PI IS POOLED DATA

Practical Tip #8 Duration of Action

Drug reps give pooled data- individual patient data is all over the place

Increasing the AM dose usually prolongs the duration of action

In general eating before a dose will decrease C_{max} and increase the AUC

Adding a PM dose of IR medication (or XR medication in fast metabolizers) should be done if symptoms recur and affect function

AM symptoms – MPH product that is given at night/the patch/PM guanfacine ER, IR med if XR med onset of action takes too long

Alpha-agonists can decrease symptoms and rebound when used with stimulants.

Practical Tip #8 Daily

Daily medication reduces A/E –side effects tend to start over and are sometimes worse when restarting

Old model of ADHD (disruptive behavior disorder) –medication until quiet (ZOMBIE) and holiday from that

NEW MODEL OF ADHD (NEURODEVELOPMENTAL DISORDER) MEDICATION UNTIL SELF (NOT MEDICATED) CONTROL AND MAINTAINING THIS TO IMPROVE EF

ADHD BY DEFINITION MUST IMPAIR MORE THAN SCHOOL-social development/peer interaction, safety, family relationships, Executive Function (maturity)

Practical Tip #9
The Therapeutic Window

ZOMBIE ZONE

FOCUS ZONE

ADHD ZONE

A/E OF STIMULANTS

Stimulants most common short-term adverse effects are appetite loss, abdominal pain, headaches, and sleep disturbance.

FLAT AFFECT, PSYCHOSIS, MOOD CHANGES, EXACERBTION OF ANXIETY, OC SYMPTOMS

GROWTH 1-2 CM IN THE MTA STUDY, OTHERS NOTHING

C/V 2-4 BPM AND 2-4 mmHg Average but subset (as high as 15% will have greater effect

SUDDEN CARDIAC DEATH NO MORE LIKELY

ADDICTION ADHD IS ASSOCIATED WITH TWO-FOLD INCREASE IN THE RISK OF SUD/ADDICTION AND STARTING STIMULANTS BEFORE AGE 9 ERASES THAT RISK. STARTING STIMULANTS AFTER AGE 9 NO EFFECT ON THE RISK

TICS-MORE LIKLEY DUE TO STRESS THAN STIMULANTS

ALPHA AGONISTS

ALMOST ALWAYS ADJUNCTIVE

CAN BE GIVEN AM OR PM

CAN HELP WITH EMOTIONAL REGULATION

USUALLY MORE HELPFUL FOR IMPULSIVE AND HYPERACTIVE SYMTPOMS

A/E: SLEEPY, DIZZY, DECREASE IN HR/BP ABDOMINAL PAIN HEADACHES

STRATTERA

I DON'T USE IT. NO ADVANTAGE TO STIMULANTS.

MORE A/E THAN STIMULANTS

4-6 WEEKS TILL EFFECTIVE

0.7 EFFECT SIZE WHEN IT GETS THERE

BLACK BOX WARNINGS FOR SI AND LIVER

KAS 7

Treat Co-morbid Conditions

The New One

The PCC, if trained or experienced in diagnosing comorbid conditions, **may initiate treatment of such conditions or make a referral** to an appropriate subspecialist for treatment. After detecting possible comorbid conditions, if the PCC is not trained or experienced in making the diagnosis or initiating treatment, the patient should be referred to an appropriate subspecialist to make the diagnosis and initiate treatment (Grade C: recommendation.)

COMMON SSRI FDA INDICATIONS AND DOSES

MEDICATION	INDICATION(S) AGES	STARTING DOSE	MAX
SERTRALINE	OCD 6-18 PD, PTSD, PMDD, SAD, OCD ADULTS	6-12 25 MG 13-18 50 MG	200 MG
FLUOXETINE	MDD 8-18 OCD 7-18 BULEMIA, PANIC IN ADULTS	10 MG	
FLUVOXAMINE	OCD 8-17	25 MG HS	8-11 200 MG 12-17 300 MG
ESCITALOPRAM	MDD 12-17 ANXIETY IN ADULTS	10 MG	20 MG

A/E OF SSRI

MILD TO MODERATE

GI ISSUES

HEADACHE

INSOMNIA

ANGER/IRRIABILITY/AGGRESSION

MUSCLE PAIN

SEXUAL DYSFUNCTION

WORSENIING OF HYPERACTIVE/IMPULSIVE SX

SERIOUS

MANIA/HYPOMANIA

AMOTIVATIONAL SYNDROME

LACK OF REGARD FOR CONSEQUENCES

LACK OF NORMAL JOY/SADNESS

SUICIDAL IDEATION

SEROTONIN SYNDROME

Practical Tip #10 SSRI TIPS

GET A DETAILED FAMILY HISTORY AND DON'T USE THEM IF FH C/W BPD OR IN V. ANGRY KIDS

FH CAN BE HELPFUL IN SELECTING MEDICATION. THIS IS NOT SO WITH STIMULANTS

START LOW AND GO SLOW. NO REASON TO INCREASE DOSE BEFORE 3 TO 4 WEEKS.

REASSESS REGULARLY-WITHIN ONE TO TWO WEEKS AND AGAIN AT A MONTH

COGNITIVE BEHAVIORAL THERAPY (STRATEGIES NOT COUNSELING) AND MEDICATION – BETTER WHEN USED TOGETHER

REASSESS NEED FOR SSRI REGULARLY STARTING 6 MONTHS AFTER SYMPTOM REMISSION

BUPROPION

MDD IN ADULTS

NOT FDA APPROVED FOR ADHD OR ANXIETY

NOT APPROVED IN CHILDREN AND ADOLESCENTS

SUMMARY

DIAGNOSE BY THE FULL DSM 5 CRITERIA

COMORBIDITY IS THE RULE.

MANAGE LIKE ANY CHRONIC CONDITION

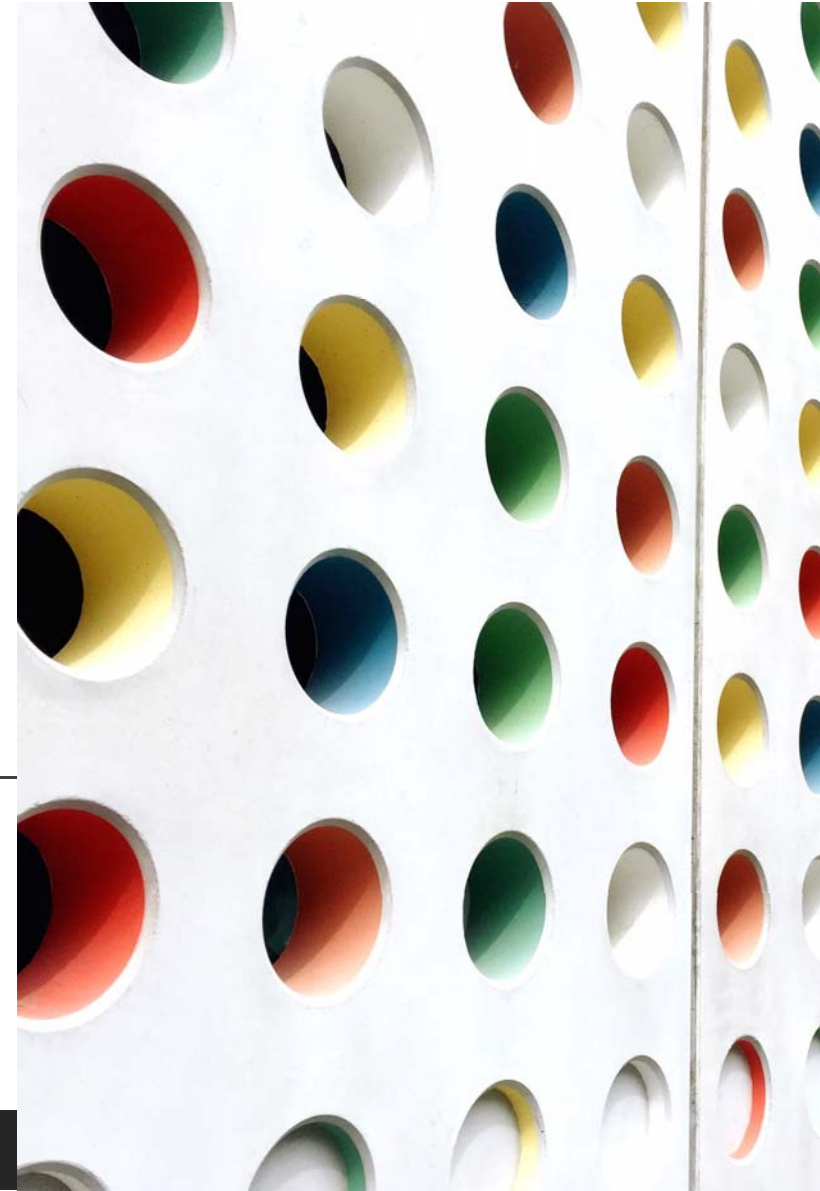
BT IS RECOMMENDED BUT CHALLENGING AND LIMITED IN EFFECTIVENESS

TREATMENT: STIMULANTS ARE FIRST LINE TITRATE TO OPTIMUM DOSE

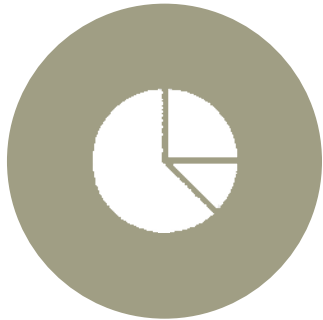
STARTING TREATMENT FOR CO-MORBIDITIES IS REASONABLE

QUESTIONS?

THANKS FOR YOUR ATTENTION



Title Lorem Ipsum



LOREM IPSUM DOLOR SIT AMET,
CONSECTETUER ADIPISCING ELIT.



NUNC VIVERRA IMPERDIET ENIM.
FUSCE EST. VIVAMUS A TELLUS.



PELLENESQUE HABITANT MORBI
TRISTIQUE SENECTUS ET NETUS.