Integrated Health Topic:
Audio Hallucinations In Teens and Adolescents

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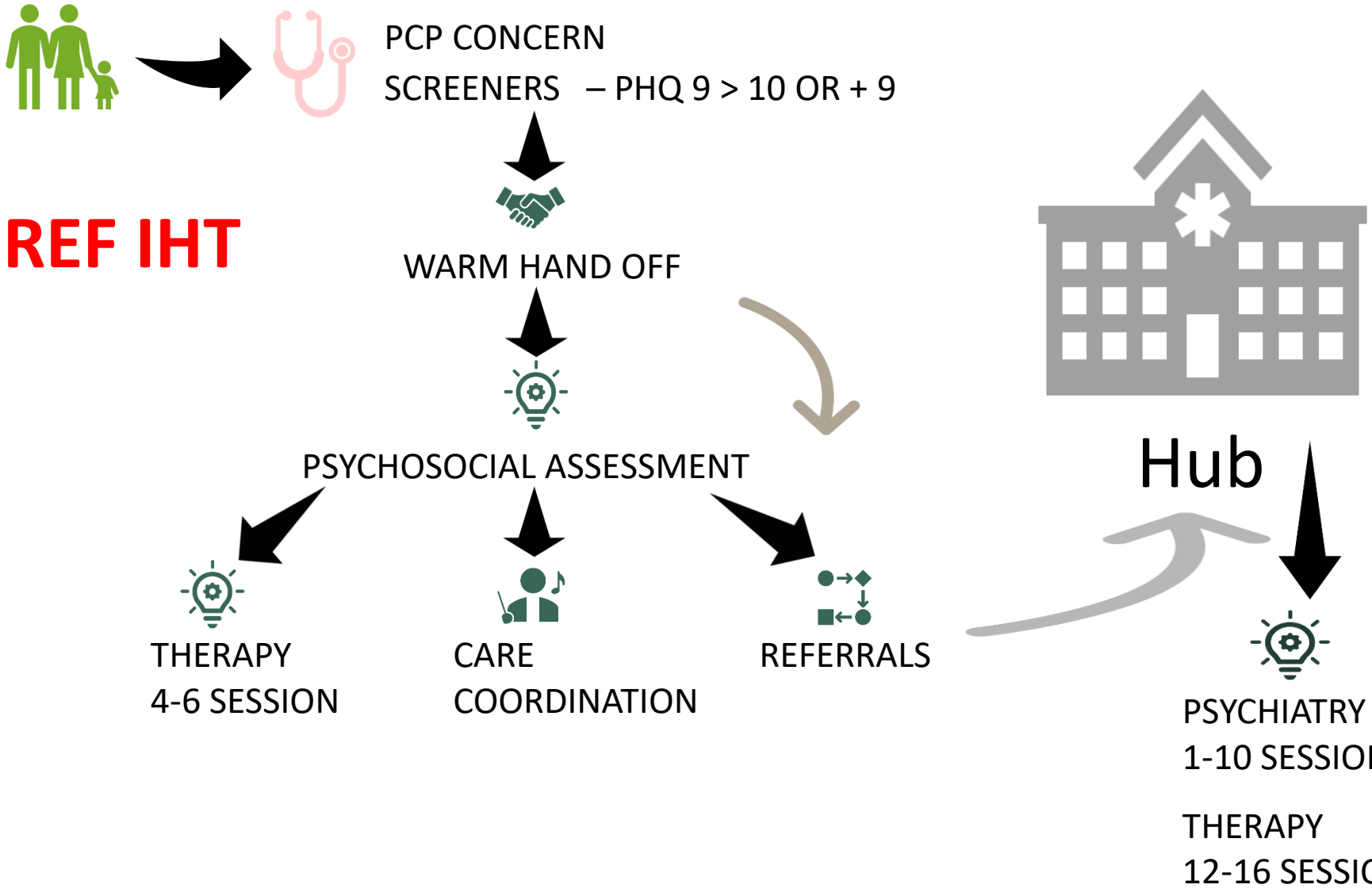
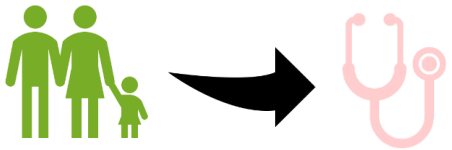
Introduction

No disclosures

MHI Flow


PCP CONCERN
SCREENERS – PHQ 9 > 10 OR + 9
REF IHT
WARM HAND OFF
PSYCHOSOCIAL ASSESSMENT
THERAPY
4-6 SESSION
CARE
COORDINATION
REFERRALS
Hub
PSYCHIATRY
1-10 SESSIONS
THERAPY
12-16 SESSION

Warm Hand Off



PCP CONCERN

SCREENERS

REF IHT

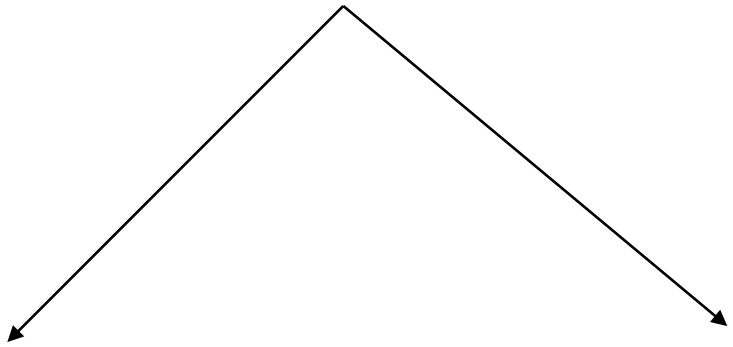
WARM HAND OFF

CHATS

C **Convene**	**Team members all met with patient/guardian together.**
H **History**	PCP gives background with patient/guardian present.
A **Assessment**	PCP gives assessment of patient and MHI role in treatment.
T **Triage**	IHT triages (assigning track, expected length of treatment).
S **Safety** **Supplementals** **Schedule**	Safety assessment/plan. Refer to ED/BHUC if necessary. Supplemental information. Schedule initial evaluation.

Today

- To understand Audio Hallucinations (AH) in teens and children



Psychotic Illness

Rare, biological underpinning, may require medication

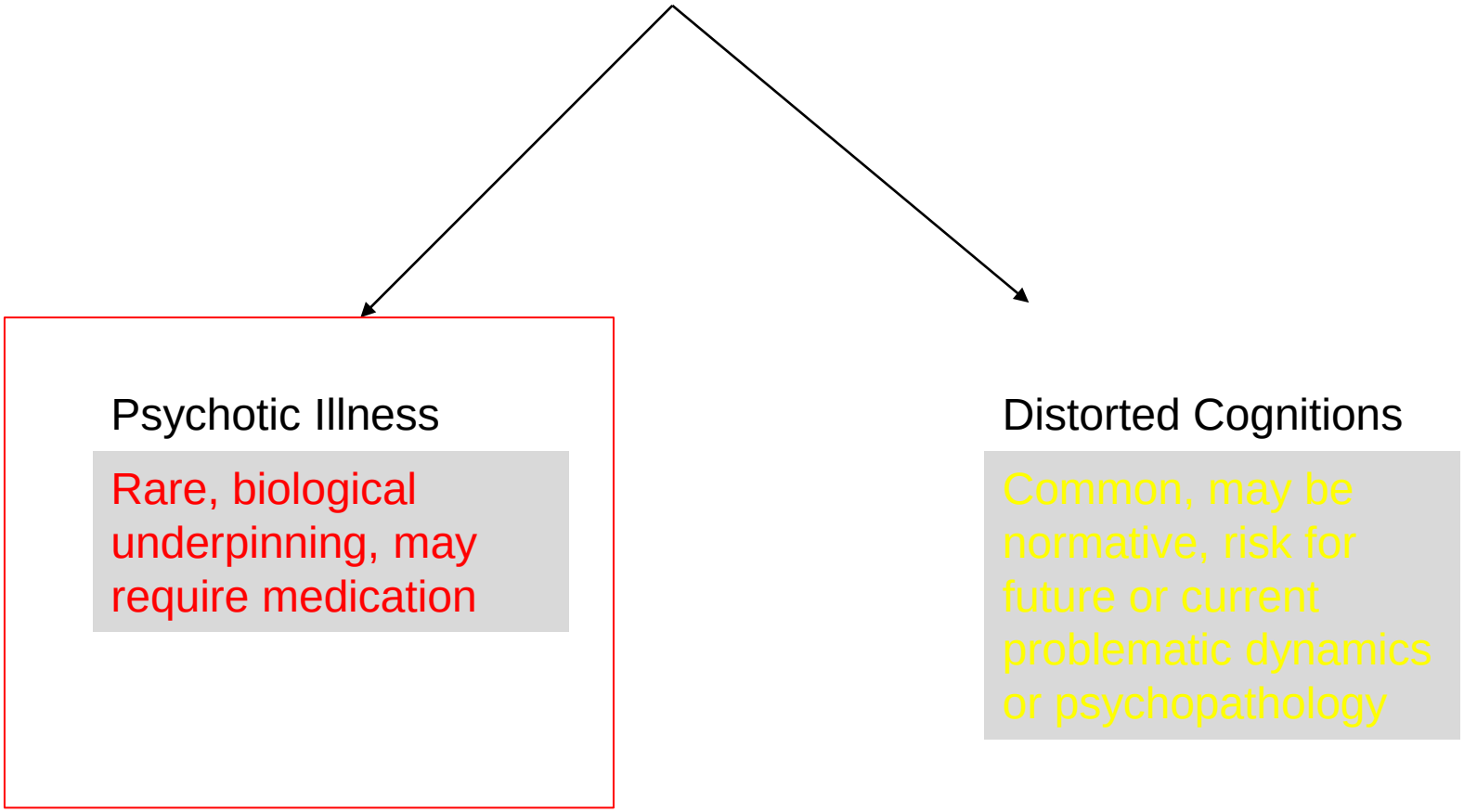
Distorted Cognitions

Common, may be normative, risk for future or current problematic dynamics or psychopathology

Audio Hallucinations in Teens and Children

- Audio Hallucinations in children are common
  - **Up to 17 % of 9-12 Yo have reported AH/VH (Maijer et al., 2019)**
- Unlikely due to psychotic illness
  - **BUT** - patients with schizophrenia have been shown to have increased blood flow the Auditory Cortex during audio hallucinations on fMRI (Dierks et al., 1999)
- **It is likely that most youth with AH don't have a biological marker, or underling organic pathophysiology**

- To understand Audio Hallucinations (AH) in teens and children



Rare, biological underpinning, may require medication

- Chronic, often progressive
  - “Positive Symptoms”
    - Disorganized thinking, Audio Hallucinations, Visual Hallucinations, Ideas of reference, Paranoia. Delusions – be care with imaginary friends
  - “Negative” Symptoms
    - Social withdrawal, avolition, poverty of speech
  - ? Cognitive symptoms

Rare, biological underpinning, may require medication

- Psychotic Illness – chronic, progress, strong genetics
    - Schizophrenia, Schizoaffective disorder
    - Bipolar disorder with psychotic features

- NOT Delirium, dementia, neurological syndromes (watch out for Autoimmune encephalitis)

Psychotic Illness

Rare, biological underpinning, may require medication

Schizophrenia

- Schizophrenia symptoms generally start in the early to mid 20s
- Neurodevelopmental disease with strong genetic component
- Uncommon for children to be diagnosed with schizophrenia
  - **Early-onset schizophrenia (EOS) 14 – 18 yo**
    - **< 1%**
  - **Very early-onset schizophrenia (VEOS or COS) < = 13 yo**
    - **extremely rare ~ 1 / 10,000 - 40,000**

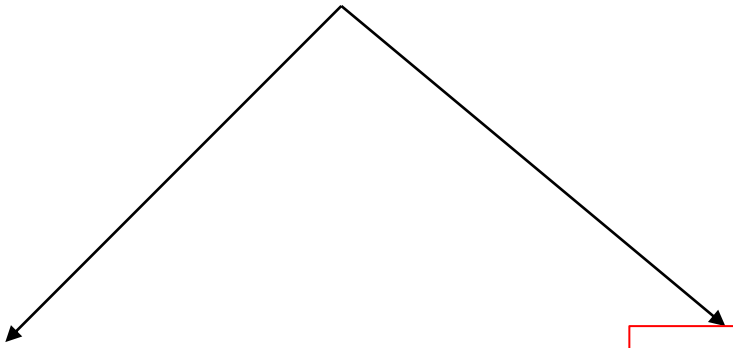
Schizophrenia

- Psychotic illness generally feels confusing, distressing, seems to be external phenomena beyond the individual's control.
- In contrast, Highly descriptive, detailed, organized, specific reports are less likely to represent true psychosis.
- Look for presence of disorganized thinking and behavior and deterioration in functioning.
- Overt signs of the illness should be evident on the MSE.

Psychosis Workup

- CMP, Lipids, CBC, Vit D
- Evaluate for Neurological findings
- Head Imaging?
- Toxicology screen
- Genetic testing is indicated if there are associated dysmorphic or syndromic features.
- Specific syndromes
  - Amino acid screens for inborn errors of metabolism, ceruloplasmin for Wilson disease, porphobilinogen for acute intermittent porphyria), RPR, HIV, Hyperammonemia, Heavy Metals.

- To understand Audio Hallucinations (AH) in teens and children



Psychotic Illness

Rare, biological underpinning, may require medication

Distorted Cognitions

Common, may be normative, risk for future or current problematic dynamics or psychopathology

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- Diagnoses
  - Depression
  - Trauma
  - Anxiety
  - Adjustment
  - Developmental Delay

- Psychological, Social Factors
  - Low Self esteem
  - Psychological tendencies (jumping to conclusions)
  - Cultural Factors

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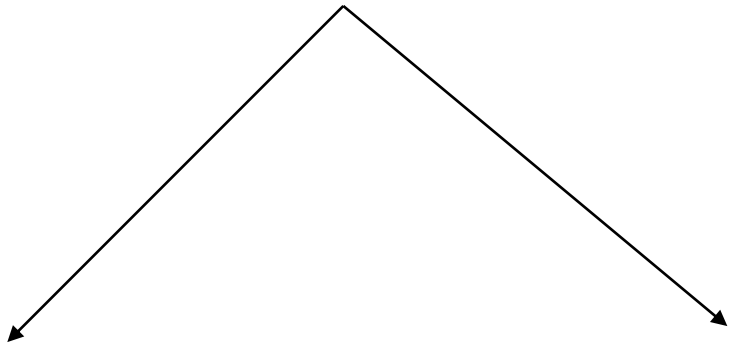

Psychotic Illness

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?

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What to Do?

- “Curious-but-cautious” approach
- Normalize AND explore
- Safety
- Maslow’s Hierarchy
- Further psychological assessment
- Medications are only primary for confirmed psychotic illness
- Medications can be used as adjunct for depression

What to Do?

- Screeners can help
    - PHQ9, SCARED, ACES
    - Educate family to minimize stigma (this is common and doesn't necessarily mean this is schizophrenia etc)
    - Therapy referral
    - Psychiatric consultation, typically after therapy referral

What to Do?

- Resources
  - IHT
  - Epic Message
  - SMARTCARE
    - DOC TO DOC – 858-880-6405
    - Families (for therapy referrals) – 858-956-5900

Depression Management

Medication	Starting Dose	Titration Schedule	Average Most Effective Dose	Max Dose
fluoxetine	5-10mg	5-10mg q1-2weeks	30-40mg	80mg
escitalopram	5-10mg	5-10mg q1-2weeks	10-20mg	20mg
sertraline	25-50mg	25-50mg q1-2weeks	100-150mg	200mg

References

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