

Welcome!

**Please be seated by 8:20 am ET
The teleconference will go live at 8:30 am ET**



Assessment of Prevention, Diagnosis, and Treatment Options

Advisory Panel Meeting

November 3, 2017



PATIENT-CENTERED OUTCOMES RESEARCH INSTITUTE

Welcome, Introductions, Overview of the Agenda, and Meeting Objectives

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Housekeeping

- Today's webinar is open to the public and is being recorded
 - Meeting materials can be found on the PCORI website
 - Comments may be submitted via email to advisorypanels@pcori.org
 - Comments may be submitted via chat; No public comment period is scheduled
- For those in the room, please remember to speak loudly and clearly into a microphone. State your name and affiliation when you speak.
- Where possible, we encourage you to avoid technical language in your discussion



Conflict of Interest Statement

Disclosures of conflicts of interest of members of this Committee are publicly available on PCORI's website and are required to be updated annually. Members of this Committee are also reminded to update conflict of interest disclosures if the information has changed by contacting your staff representative.

If this Committee will deliberate or take action on a manner that presents a conflict of interest for you, please inform the Chair so we can discuss how to address the issue. If you have questions about conflict of interest disclosures or recusals relating to you or others, please contact your staff representative.



Panel Member Introductions



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Agenda Overview

Time	Agenda Item
8:30 – 9:00 am	Welcome, Introduction, Overview of the Agenda and Meeting Objectives
9:00 – 10:30 am	Comparative Effectiveness of Outpatient Treatments for Adolescents with Eating Disorders
10:30 – 10:45 am	Break
10:45a – 11:30 am	Anxiety Disorders in Children, Adolescents and Young Adults
11:30 am – 12:30 pm	Lunch (APDTO and CDR panels together)
Joint CDR / APDTO Panel Meeting	
12:30 – 1:00 pm	History of CDR / APDTO Panels
1:00 – 1:30 pm	PCORI Science
1:30 – 2:15 pm	Public Policy Update
2:15 pm – 3:30 pm	Prioritization of Pragmatic Clinical Studies Topics
3:30 pm	Adjourn



Meeting Objectives

- Introduce new APDTO panelists
- Review CER Topic: Comparative Effectiveness of Outpatient Treatments for Adolescents with Eating Disorders
- Provide an update on CER topic: Anxiety Disorders in Children, Adolescents and Young Adults
- Engage in a joint afternoon meeting with the CDR Advisory Panel to receive an update on PCORI science, public policy, and prioritize PCS topics



Status of CER Topics reviewed in May 2017

Topics

Comparative Effectiveness of Second-Line Therapies for Patients with Metastatic Colorectal Cancer



Research Prioritization Topic Brief

Comparative Effectiveness of Outpatient Treatments for Adolescents with Eating Disorders

Sarah Daugherty, Senior Program Officer, Science

Fatou Ceesay, Senior Program Associate, Science

Clinical Effectiveness & Decision Science



Goal & Purpose

Goal: To determine if there is an important need for new evidence on outpatient treatment for eating disorders in adolescents.

The plan for this discussion is to both review the state of evidence and the value of new research.



Topic Nomination

- American Benefit Council
 - comparative effectiveness of interventions for eating disorders, with an eye towards comparators that aim to prevent inpatient treatment.
- There are no current studies in the PCORI portfolio that focus on the treatment of eating disorders.



Focus of Eating Disorder Discussion

- Eating disorders are characterized by a “persistent disturbance of eating that impairs health or psychological functioning”.
- This discussion is focused on
 - Anorexia Nervosa and Bulimia Nervosa
 - Outpatient treatment
 - Adolescents



Methods

- **Literature Search**
 - Searched PUBMED and Cochrane Database for published and ongoing RCTs and systematic reviews of outpatient treatment for AN and BN, particularly among adolescents.
- **Ongoing Research**
 - ClinicalTrials.gov for “outpatient treatment” or “adolescents” with “anorexia nervosa” or “bulimia nervosa”.
- **Evidence Gaps**
 - Recommendations identified through systematic reviews and meta-analyses on topics.

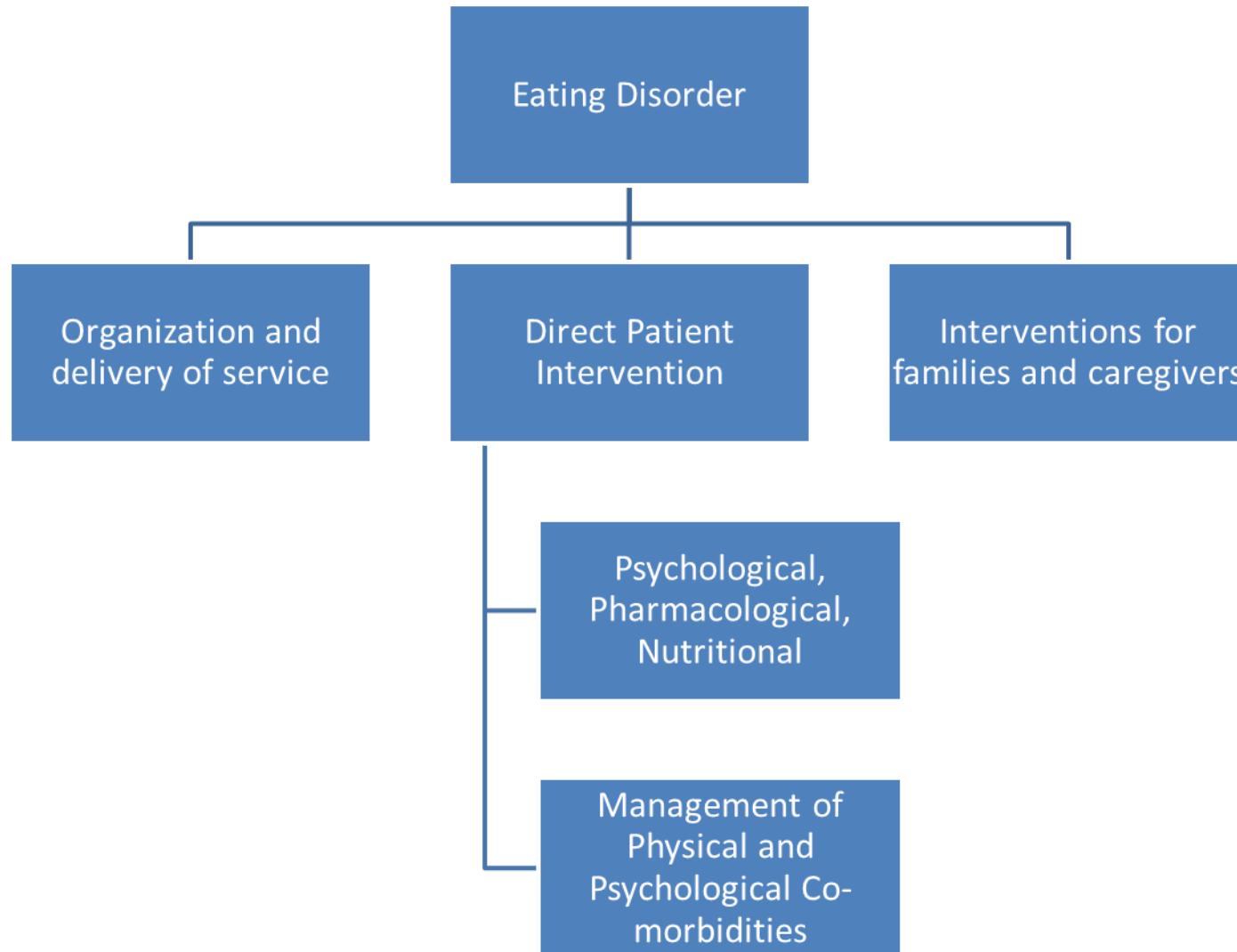


Guidelines for Treatment of Eating Disorders

- **2017 The National Institute for Health and Care Excellence (NICE)**
 - Clinical Guideline on the Management of Eating Disorders
- **2014 American Academy of Child and Adolescent Psychiatry (AACAP)**
 - Practice Parameter for the Assessment and Treatment of Children and Adolescents with Eating Disorder
- **2012 American Psychiatric Association (APA)**
 - Practice Guidelines for the Treatment of Patients with Eating Disorder



Eating Disorder Intervention Framework



Anorexia Nervosa: Background, Current Literature, Ongoing Trials



Anorexia Nervosa Definition: DSM-5

- Persistent restriction of energy intake leading to significantly low body weight.
- An intense fear of gaining weight or of becoming fat, or persistent behavior that interferes with weight gain.
- Disturbance in the way one's body weight or shape is experienced, undue influence of body shape and weight on self-evaluation, or persistent lack of recognition of the seriousness of the current low body weight.
- Subtypes: restricting; binge-eating/purging.



Anorexia Nervosa: Epidemiology

- **Lifetime prevalence:** reported at 0.3% among adolescents.
- **Morbidity:** growth and developmental delays due to malnutrition; osteoporosis and increased risk of bone fractures.
- **Mortality:** The crude mortality rate is 5.6% with 1 in 5 deaths due to suicide.



Anorexia Nervosa: Risk Factors

- Female gender
- Adolescent age
- Family history
- Co-morbid conditions
- Race/ethnicity



Anorexia Nervosa: Guidelines for Treatment

- Outpatient care for medically stable individuals.
- Refeeding is a necessary component of treatment, but is not sufficient.
- Family-based therapy (FBT) is recommended as first line therapy for children and adolescents with anorexia nervosa.
- Pharmacotherapy should not be utilized as a sole treatment strategy.



Current Evidence and Evidence Gaps

Intervention Domain	Limitations	Evidence Gap
<p>Delivery of Service</p> <p>Emerging evidence suggests outpatient treatment and day patient (partial hospitalization) as effective as inpatient treatment</p> <p>Stepped care -- difficult to implement in AN</p>	<p>Limited number of head-to-head RCTs of treatment settings</p> <p>Tested intervention intensity may not map to current practice in U.S.</p>	<p>Level of intensity and key components of outpatient care relative to partial hospitalization and in-patient care</p> <p>Long-term outcomes</p> <p>Most appropriate early indicators to be utilized for stepped care</p>

Current Evidence and Evidence Gaps

Intervention Domain	Limitations	Evidence Gap
<p>Psychotherapy</p> <p>Family-based Therapy (FBT) is most promising therapy in adolescents</p> <p>Individual psychological therapies shown to be efficacious in adults</p> <p>Few head-to head comparisons of therapies in adolescents</p>	<p>Small sample size</p> <p>Short follow-up</p> <p>Low to very low quality evidence</p>	<p>The optimal type or form of FBT</p> <p>Effectiveness of FBT compared to other psychological interventions</p> <p>Long-term effectiveness of FBT on remission rates</p> <p>Full range of outcomes including general functioning and family functioning</p>



Ongoing Research in ClinicalTrials.gov

- Five of the 11 “out-patient-specific” AN studies provided a head-to-head comparison of clinical strategies/medications.
 - One assessed stepped care versus inpatient (included adolescents) (n=41)
- Few head-to-head RCTs were ongoing among “adolescent-specific” AN studies in ClinicalTrials.gov.
 - One study FBT v. adaptive FBT (n=150)



Bulimia Nervosa: Background, Current Literature, Ongoing Trials



Bulimia Nervosa Definition: DSM-5

- Recurrent episodes of binge eating
 - Eating large amounts of food, in a discrete period of time
 - A sense of lack of control over eating
- Inappropriate purging behavior to prevent weight gain
- Occurs at least once a week for 3 months
- Self-evaluation is influenced by body shape and weight
- Subtypes: purging; nonpurging



Bulimia Nervosa: Epidemiology

- **Lifetime Prevalence:** 1.5% in adolescent females and 0.5% for adolescent males.
- **Morbidity:** Acid reflux disorder and other gastrointestinal problems, chronically inflamed and sore throat, swollen salivary glands and worn tooth enamel due to frequent binging and purging.
- **Mortality:** 3.9% coupled with a high suicide rate.



Bulimia Nervosa: Risk Factors

- **Gender:** occurs most often in females
- **Age:** Average age of onset is the late teens
- **Co-morbid Condition:** Most adolescents with BN have at least 1 co-morbid psychiatric illness
- **Environmental Triggers:** PTSD, abuse and rape



Bulimia Nervosa: Guidelines for Treatment

- Outpatient psychosocial interventions are the initial treatment of choice:
 - Family Based Therapy (FBT) should be considered whenever possible especially when dealing with adolescent patients.
 - CBT is the most effective and best-studied intervention for BN.
- Normalization of nutrition and eating habits.
- Use antidepressant as a second line of treatment for adolescent BN.



Bulimia Nervosa: Current Evidence

Intervention Domain	Limitations	Evidence Gap
<ul style="list-style-type: none">• Delivery of Service<ul style="list-style-type: none">○ Outpatient interventions is recommended as the first option○ Other treatment setting are recommended only after outpatient fails○ Stepped care approach has been proven to be effective	Small sample size Excluded individuals with co-morbidities	Optimal intensity with which outpatient care should be delivered Components of and sequences of stepped care that have the greatest impact on outcomes

Bulimia Nervosa: Current Evidence

Intervention Domain	Limitations	Evidence Gap
<p>Psychotherapy</p> <ul style="list-style-type: none">○ CBT – CBT, particularly CBT-BN, has established efficacy and is the “treatment of choice”○ FBT – limited evidence in adolescents○ Guided Self Help – found to be effective in adults	<p>Many studies were small</p> <p>Methodological limitations</p> <p>Head-to-head-trials of FBT are conflicting</p>	<p>Large high quality studies looking at long-term effects among psychological therapies</p> <p>Patient characteristics and subtypes of BN that alter effectiveness of treatment</p>

Bulimia Nervosa: Current Evidence

Intervention Domain	Limitations	Evidence Gap
Medication <ul style="list-style-type: none">○ Fluoxetine demonstrated a significant reduction in binging and purging frequency –	<p>Few studies were conducted among adolescents</p> <p>Short-term follow-up</p> <p>Low quality of evidence</p>	<p>Effectiveness of fluoxetine in adolescents</p> <p>Optimal dose and type of pharmacological intervention</p> <p>Combination of psychotherapy and medication</p>



Bulimia Nervosa: Ongoing Research in CT.gov

- Of the 13 out-patient specific studies:
 - 6 randomized trials
 - 6 observational studies
 - 1 had no information on study design
- None of the studies provided a head-to-head comparison of clinical strategies/medication



Conclusions

- Emerging evidence suggests outpatient treatments may be as effective as inpatient for individuals with AN.
- Few large, high-quality studies have evaluated stepped care v. partial hospitalization v. inpatient care in adolescents.
- Limited evidence on optimal type of FBT and few head-to-head comparisons of FBT v. CBT in adolescents with long-term outcomes.
- Few RCTs have considered full range of patient-centered outcomes including general and family functioning.



Discussion Reminders

1. Consider the topic with respect to the following:
 - a) Patient-centeredness
 - b) Impact
 - c) Important evidence gap
 - d) Likelihood of implementation in clinical practice
 - e) Durability of information

2. Are there contextual issues that would hinder or facilitate the research?



BREAK

10:30 am – 10:45 am

Anxiety Disorders in Children, Adolescents and Young Adults

Laura Esmail, PhD, MSc

Program Officer

Clinical Effectiveness and Decision Science



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Objectives

- Discuss the problem of pediatric anxiety
- Outline the current state of the evidence base
- Summarize evidence gaps and research needs
- Provide an overview of PCORI's efforts to date
- Discussion



Anxiety in the Media

STYLE

Prozac Nation Is Now the United States of Xanax

By ALEX WILLIAMS JUNE 10, 2017



Answer Sheet

Facing down debilitating anxiety — a college freshman's story

By Valerie Strauss February 2, 2016



anxiety

@lonestfeels

Follow

Having anxiety is the most silently painful experience. It makes no sense and you sit there alone and suffer for an unknown

THE LEARNING NETWORK

Do You Think Anxiety Is A Serious Problem Among Young People?

Student Opinion

By SHANNON DOYNE JUNE 12, 2017



On Parenting • Perspective

My son's anxiety is making him miss out on some of life's best moments



Anxiety Girl

@AnxietyGirlxo

Follow

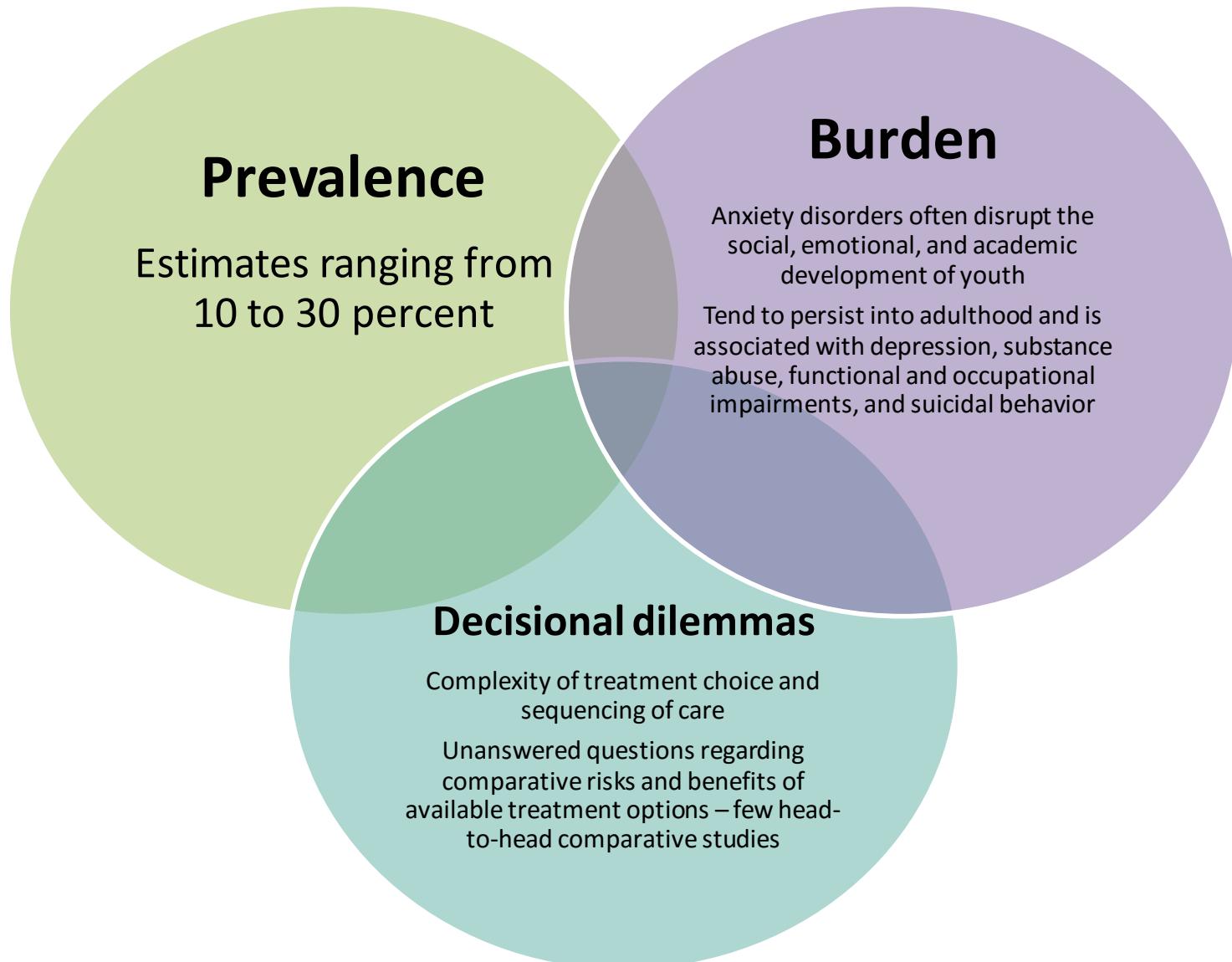
Suddenly going into panic out of the blue, usually in the wrong place at the wrong time. **#ThisIsWhatAnxietyFeelsLike**

1:15 PM - 3 Jul 2017



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Anxiety Disorders in Youth – Why PCORI is Interested



Treatment Options for Pediatric Anxiety

- Main treatment options for anxiety disorders (including panic disorder, social anxiety disorder, specific phobias, generalized anxiety disorder, and separation anxiety disorder) in children and adolescents include:
 - Psychotherapy (Cognitive behavioral therapy (CBT) and non-CBT therapies)
 - Pharmacotherapy (e.g., SSRIs)
 - Psychotherapy + pharmacotherapy combination approaches



Conflicting guidance in clinical guidelines

- Clinical guidelines offer inconsistent advice regarding treatment for patients with moderate-to-severe symptomatology:
 - NICE (2013) recommends CBT for all levels of symptom severity, and *does not recommend any pharmacologic intervention* for youth under age 18
 - BCMSC (2010) recommends *starting with CBT*, and adding SSRIs if CBT does not lead to an adequate response
 - AACAP (2007) recommends the *consideration of SSRIs* when youth present with moderate or severe symptoms initially, impairment makes participation in psychotherapy challenging, or psychotherapy results in a partial response
 - Medications other than SSRIs (i.e., TCAs, benzodiazepines, and buspirone) may also be considered



AHRQ 2017 Systematic Review on Anxiety in Children

- The review evaluated the effectiveness of the main treatment options for anxiety disorders in children and adolescents (ages 3-18) and found that:
 - **Compared to placebo, SSRIs and SNRIs improved primary anxiety symptom** (moderate strength of evidence (SOE)) **and function** (high SOE)
 - **Compared to wait-listing, CBT reduced primary anxiety symptoms, improved function, and increased the likelihood of being diagnosis free** (moderate SOE)
 - **Compared to placebo, non-CBT psychotherapies improved primary anxiety symptoms** (moderate SOE)
 - However, these non-CBT therapies had a considerably smaller and less robust body of evidence compared to CBT

Wang Z, Whiteside S, Sim L, Farah W, Morrow A, Alsawas M, Barrionuevo Moreno P, Tello M, Asi N, Beuschel B, Daraz L, Almasri J, Zaiem F, Gunjal S, Larrea Mantilla L, Ponce Ponte O, LeBlanc A, Prokop LJ, Murad MH. Anxiety in Children. Comparative Effectiveness Review No. 192. (Prepared by the Mayo Clinic Evidence-based Practice Center under Contract No. 290-2015-00013-I.) AHRQ Publication No. 17-EHC023-EF. Rockville, MD: AHRQ; August 2017.



Addressing Access to CBT: Evidence on Digital Health Interventions (DHIs)

- Access to evidence-based psychotherapies is limited by the insufficient supply of trained mental health practitioners
- DHIs (including computer-assisted therapy, smartphone apps, and wearable technologies) have the potential to improve the accessibility and efficiency of mental health interventions
- Meta-analyses and an updated systematic review support the effectiveness of computerized CBT (compared to wait-listing) for improving anxiety symptoms in adolescents and young adults with mild-to-moderate symptoms

Hollis C, Falconer CJ, Martin JL, Whittington C, Stockton S, Glazebrook C, Davies EB. Annual Research Review: Digital health interventions for children and young people with mental health problems—a systematic and meta-review. *Journal of Child Psychology and Psychiatry*. 2017 Apr 1;58(4):474-503.



Pediatric Anxiety: Research Needs

- Additional research is needed to assess:
 - The impact of comorbidities, family demographics, and stressors as treatment effect modifiers
 - The most beneficial components of CBT, and how this may vary by patient characteristics
 - The level and type of human support required for clinically effective DHIs, and whether DHIs improve access to and acceptability of care
- Evidence is significantly lacking for:
 - Head-to-head comparisons of individual medications
 - Comparisons of CBT versus medications
 - Comparisons of combination therapy (CBT + medication) versus monotherapy
 - Treatment sequencing approaches and the discontinuation of treatment
- Larger trials (>400 participants) with follow-up that exceeds 2-3 years are needed to address these evidence gaps

Wang Z, Whiteside S, Sim L, et al. Anxiety in Children. Comparative Effectiveness Review No. 192. (Prepared by the Mayo Clinic Evidence-based Practice Center under Contract No. 290-2015-00013-I.) AHRQ Publication No. 17-EHC023-EF. August 2017.



Pediatric Anxiety: Topic History at PCORI

- PCS Priority Topic: Tele-delivery of evidence-based interventions for anxiety and depression (working-age adult populations)
 - Active for 3 PCS cycles
- Quarterly Call with Primary Care Specialty Societies: September 2016
 - PCPs expressed strong interest in treatment of anxiety in children
- Topic refinement discussions: May 2017
 - American Academy of Child and Adolescent Psychiatry (AACAP), American Academy of Pediatrics (AAP), Anxiety and Depression Association of America (ADAA), and National Institute of Mental Health (NIMH)
- Topic refinement workshop held on July 26, 2017:
 - 29 stakeholders representing clinicians, researchers, payers, and patients participated in the meeting
 - An additional 66 stakeholders participated via webinar



Initial Feedback from Stakeholders

- Anxiety disorders in youth are underdiagnosed
- Strong interest in a range of information, including CER, for both pharmacologic and psychological interventions for children and adolescents with anxiety [ages 6+]
- Need for research on the most appropriate initial treatments, sequences of care, including both pharmacologic and psychological approaches, appropriate duration of care, and if/when to taper or discontinue medication
 - *“Would allow us to better allocate resources to kids who need more help.”*
- Consideration of family needs, communication needs, and how to navigate the healthcare system and better access care



Feedback from Stakeholder Workshop on Anxiety Disorders in Youth

- Stakeholders expressed need for additional research on:
 - Comparisons of various models of CBT (e.g., delivery mechanism, intensity, type of support)
 - Community-based approaches for early intervention (e.g., school-based mindfulness programs)
 - Head-to-head comparisons of pharmacotherapy (particularly SSRIs and SNRIs) in combination with CBT
 - Comparisons of approaches to treatment initiation, sequencing, and maintenance strategies for relapse prevention



PCORI's Funding Announcements

- **PCS Special Area of Emphasis** topic for **Cycle 2 2017**:
 - *Compare the effectiveness of one or more digital applications of CBT to an appropriate active control (e.g., face-to-face CBT) for the treatment of mild-to-moderate anxiety in children, adolescents, and/or young adults (through age 25).*
- PCORI set aside up to \$25 million to fund up to 3-4 applications



PCORI's Funding Announcements

- **New PCS Priority Topic for Cycle 3, 2017:**
 - *Compare the effectiveness of two or more evidence-based approaches for the treatment of anxiety in children, adolescents, and young adults (through age 25).*
 - *PCORI is interested in studies which examine comparisons of different approaches to treatment initiation, sequencing, monitoring, maintenance, and/or relapse prevention following an initial effective course of treatment.*
- **LOIs were due 10/31**



Discussion



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LUNCH

11:30 am – 12:30 pm



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History of CDR / APDTO Advisory Panel

David Hickam, MD, MPH

*Program Director, Clinical Effectiveness and Decision
Science, PCORI*

Stanley Ip, MD

*Associate Director, Clinical Effectiveness and Decision
Science, PCORI*

William Lawrence, MD, MS

*Associate Director, Clinical Effectiveness and Decision
Science, PCORI*



Joint CDR / APDTO Panel Meeting

Context and Objectives

- The 2016 Science reorganization reflects PCORI's vision of how to align our national research priorities with programmatic functions and structure
 - Clinical Effectiveness and Decision Science
 - Healthcare Delivery and Disparities Research
- The PCORI Board of Governors will review the activities of the Advisory Panels
 - Refocusing of programmatic Advisory Panels
- Today's afternoon session provides opportunity for CDR / APDTO panels to meet jointly, learn the history of both panels, and engage in collaborative discussion



History of CDR Priority

- Communication and Dissemination Research established as one of 5 National Research Priorities in 2012
 - “Comparing approaches to providing comparative effectiveness research information, empowering people to ask for and use the information, and supporting shared decision-making between patients and their providers.”
- Original PFA for the CDR Priority issued in 2012
- CDR Advisory Panel Charter approved in 2015



CDR Funding

- Focus of the current PFA:
 - Communication strategies to promote the use of health and health care CER evidence by patients and clinicians;
 - Dissemination strategies to promote the use of health and health care CER evidence by patients and clinicians;
 - Explaining uncertain health and health care CER evidence to patients and clinicians.
- Currently, total of 47 projects funded under the CDR Priority
 - 41 Communication
 - 6 Dissemination
 - 7 Explaining Uncertainty (also have a communication component)



History of APDTO Priority

- Assessment of Prevention, Diagnosis, and Treatment Options (APDTO) established as one of 5 National Research Priorities in 2012
 - “Comparing the effectiveness and safety of alternative prevention, diagnosis, and treatment options to see which ones work best for different people with a particular health problem.”
 - Compares the effectiveness of two or more strategies for prevention, treatment, screening, diagnosis, or management
 - Compares specific clinical services or strategies that are clearly defined and can be replicated in other clinical settings with minimal adaptations or changes
- Original PFA for the APDTO Priority issued in 2012
- Awarded 118 projects through Cycle 3 2016



History of APDTO Advisory Panel

- APDTO Advisory Panel first met in April 2013
- Today's meeting is the 15th meeting of the APDTO panel
- Purpose: to "advise and provide recommendations to PCORI's Board of Governors, Methodology Committee, and staff to help plan, develop, implement, improve, and refine efforts toward meaningful patient-centered research"
 - Prioritize critical research questions for possible funding
 - Provide ongoing feedback and advice on evaluating and disseminating the research conducted under this priority
- As of today's meeting, the APDTO panel has reviewed 84 clinical effectiveness research topics



Questions / Discussion



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PCORI Science

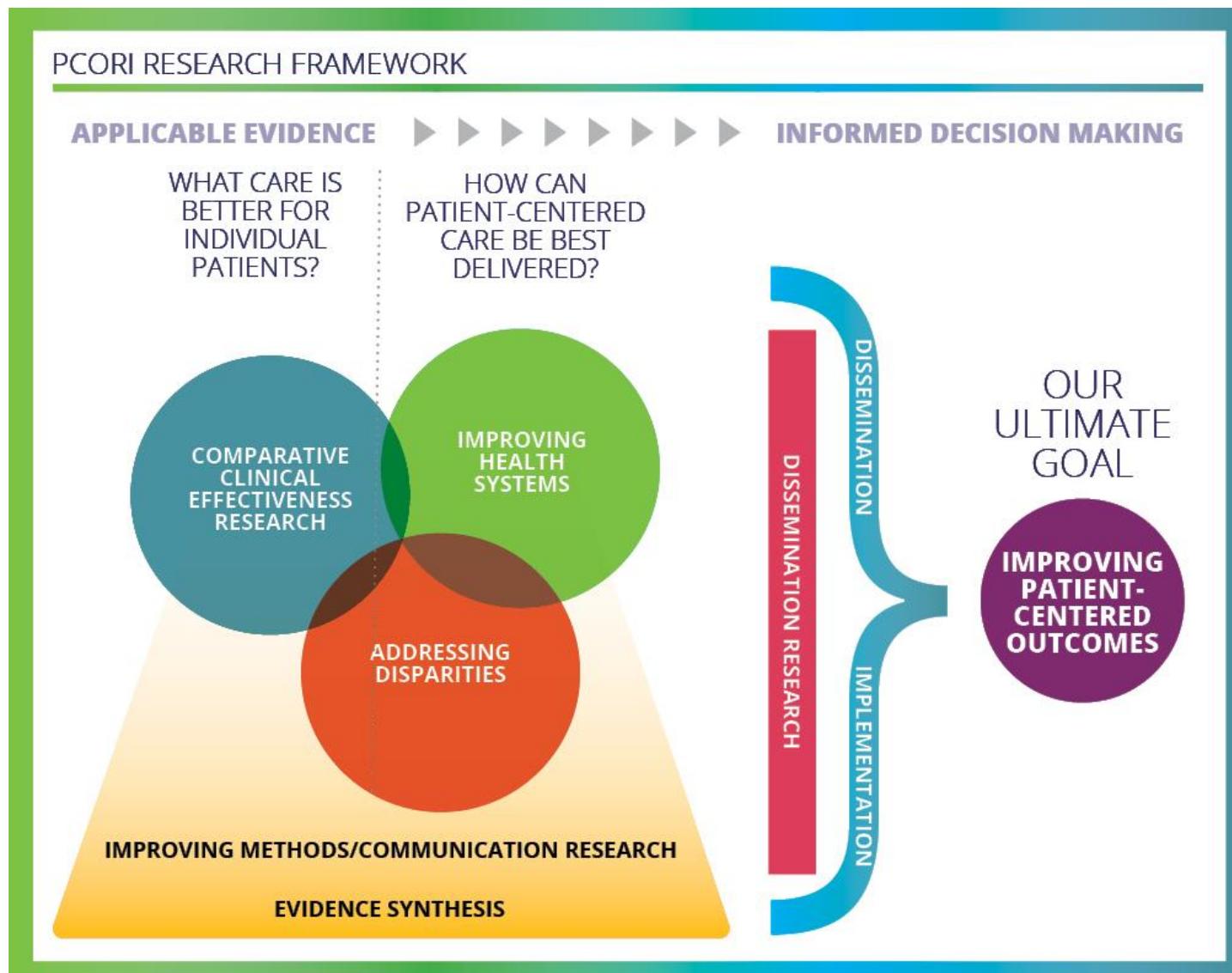
Evelyn P. Whitlock, MD, MPH

Chief Science Officer



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Our Research Framework



Research and Evidence Synthesis



PCORI and Evidence Synthesis

- PCORI's authorizing legislation states that **evidence synthesis** is a core function of PCORI:

“(C) PURPOSE.—The purpose of the Institute is to assist patients, clinicians, purchasers, and policy-makers in making informed health decisions by advancing the quality and relevance of evidence concerning the manner in which diseases, disorders, and other health conditions can effectively and appropriately be prevented, diagnosed, treated, monitored, and managed through research and evidence synthesis that considers variations in patient subpopulations....”



Evidence Synthesis

- Methodologies for integrating evidence from variable sources to produce more comprehensive or best evidence
 - Provides knowledge beyond individual studies alone
 - Identifies areas of agreement and disagreement in quantitative and/or qualitative terms
 - Permits identification of research gaps
 - Examples: **Systematic reviews**, rapid reviews, decision models, analytic approaches (e.g., aggregate data meta-analysis (MA), individual patient-level data (IPD) MA, network MA, others)



PCORI's Research Synthesis Program (2017)

- Three initial goals:
 1. Research to address heterogeneity of treatment effects, more personalized individual health care choices
 2. More rapid deployment of actionable CER evidence in context
 3. Communication of current portfolio (rationale, themes and lessons, context)



Areas of Portfolio Focus

Our website highlights additional PCORI Research Areas
www.pcori.org/research-results/research-topics

Cardiovascular Disease

Learn about our funded research on heart disease, the leading cause of death nationally.



Cancer

Read about our portfolio addressing cancer, the no. 2 cause of death in the United States.



Pain Care and Opioids

Read about our funded projects on managing chronic pain and addressing opioid use.



Kidney Disease

Read about our funded research on which treatments work best for patients.



Multiple Sclerosis

Learn about the research we're funding to help improve the lives of Americans with MS.



Dementia and Cognitive Impairment

Read about our funded studies on dementia and cognitive impairment, including Alzheimer's disease.



Transitional Care

Learn about projects on improving transitions between healthcare settings or providers.



Questions?

Evelyn P. Whitlock, MD, MPH

Chief Science Officer



PCORI CDR/ADPTO Advisory Panel: Public Policy Update

Andrew Hu

Director, Public Policy and Government Relations

Jean Slutsky

Chief Engagement and Dissemination Officer



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THE US LEGISLATIVE PROCESS

SENATE

A BILL IS INTRODUCED BY A MEMBER OF THE SENATE AND ASSIGNED TO A COMMITTEE FOR REVIEW.

THE COMMITTEE MEETS TO DISCUSS, AMEND, AND VOTE ON THE BILL.



IF APPROVED, BILL PROCEEDS TO THE FULL SENATE FOR FURTHER DISCUSSION, AMENDMENTS, AND VOTING.



PRESIDENT SIGNS THE BILL AND IT BECOMES A LAW.

IT STARTS WITH AN IDEA...



BILLS MUST PASS THROUGH BOTH CHAMBERS BEFORE BEING SENT TO THE PRESIDENT.

HOUSE OF REPRESENTATIVES

A BILL IS INTRODUCED BY A MEMBER OF THE HOUSE AND ASSIGNED TO A COMMITTEE FOR REVIEW.

THE COMMITTEE MEETS TO DISCUSS, AMEND, AND VOTE ON THE BILL.



IF APPROVED, BILL PROCEEDS TO THE FULL HOUSE FOR FURTHER DISCUSSION, AMENDMENTS, AND VOTING.

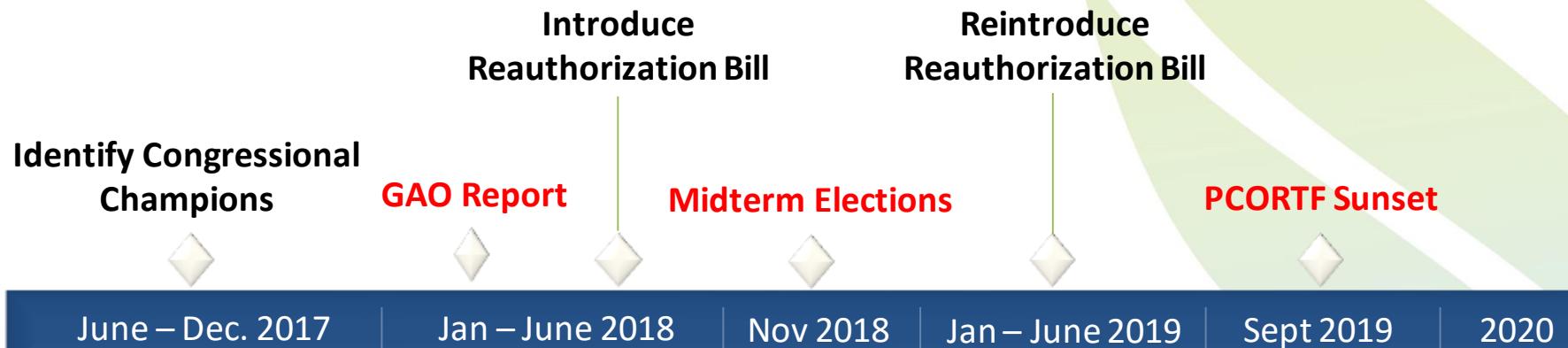


THE VETO CAN BE OVERRIDDEN BY CONGRESS WITH A 2/3 VOTE.

PRESIDENT VETOES THE BILL AND SENDS IT BACK TO CONGRESS.



Timeline for Reauthorization



As we work to reauthorize PCORI's funding for the future, it is important to know that PCORI is committed to fulfilling our mandate from Congress and will continue to exist and support the generation of patient-centered research beyond 2019.



Current Priorities for Reauthorization

- Increase awareness of PCORI to policymaking community
- Showcase the value and impact of research
- Continued engagement with key stakeholders
- Frame the role of PCORI for the next 10 years
- Build upon third-party validation



What PCORI is Doing

Education and Increasing Awareness

- Direct engagement with Congressional staff and policymakers
- Congressional briefings
- Thought-leadership activities
- Increased media presence

Highlighting Results and Potential Impacts

- Promoting final results
- Developing economic impact analysis of study findings (*loss of work, decreased hospitalizations, etc.*)

Identifying Potential Policy Roles

- Early access to FDA data to support drug pricing/value debate
- Real-world evidence and early-market surveillance activities
- Coverage with evidence development
- Role in identifying key patient-reported outcomes

Building and Mobilizing Third-Party Support

- Identify and leverage third-party validators
- Activating PCORI validators and direct engagement with patient and stakeholder organizations
- Managing key stakeholder perspectives and opinions

Examples of Patient Org Engagement

- Targeting 40+ patient stakeholders for personal touches

Recent Meetings

- ✓ **American Diabetes Association**
- ✓ **American Heart Association**
- ✓ **American Lung Association**
- ✓ **Lung Cancer Alliance**
- ✓ **National Organization of Rare Disorders**

Key Requests

- More frequent updates throughout lifecycle of relevant projects
- Increase awareness of results timeline
- More accessible view of PCORI portfolio, e.g. where projects intersect with subtopics and populations of interest
- Interest in economic modeling

PCORI Follow-up

- Provided more detailed updates on specific studies of interest, per PCORI Program Officers.
- Created portfolio crosswalks based on subtopic, population, and types of outcomes.
- Arranged a PCORI speaker at NORD Annual Meeting.
- Opened door for ongoing dialogue.

Examples of Stakeholder Org Engagement

- Strategic targeting of medical specialty societies

Recent Meetings

- ✓ **American College of Surgeons**
- ✓ **American Medical Association**
- ✓ **Society of Thoracic Surgeons**
- ✓ **American Association of Neurological Surgeons**

Key Requests

- Improve review process to make it easier for societies to apply for research
- Fund studies that utilize physicians registries
- Interested in further engagement regarding implementation and implementation strategies
- More accessible understanding of our portfolio

PCORI Follow-up

- Planning a medical specialty society roundtable for Jan. 2018
- Working with individual societies to support research topic generation
- Engaging specialty societies around dissemination and implementation opportunities
- Leverage BoG relationships to increase PCORI engagement and presence at society meetings

Meeting

PCORI and Anthem cohosted a briefing on the need for evidence-based strategies to address America's opioid epidemic. Speakers included **Senator Shelly Moore Capito** (R- WV).



Stakeholders

Anthem (cohost), PCORI-funded researcher (Erin Krebs, MD, MPH), Veterans Health Administration researcher (Stephanie Tayler, PhD, MPH), patient partner (Christine Veasley)



Importance

PCORI will continue to use its **convening power** to demonstrate the crucial role **clinical comparative effectiveness research** will play in both solving the immediate opioid crisis, and building an **evidence base** for alternative chronic pain treatment options.



Examples of Third-Party Validation



The Value of Comparative Effectiveness Research

Dr. Phil Gingrey, The District Policy Group
([link](#))

“ *...I am impressed with the PCORI studies I reviewed and am encouraged by the manner in which the information is being disseminated and leveraged – to the benefit of patients, physicians and the health care system, and not in an autocratic way.*

The Future of Comparative Effectiveness Research

Hannah Martin, Bipartisan Policy Center ([link](#))

“ *...PCORI enjoys broad bipartisan support for its mission to provide providers with the best evidence-based information on treatments, while also giving them the flexibility to tailor treatments to each individual patient.*

Prioritization of PCS Topics

Assessment of Prevention Diagnosis and Treatment Options and Communication and Dissemination Research Joint Advisory Panel Meeting

November 3, 2017

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Goals for PCS Topics Session

- Review PCORI's priority topics relevant to the Clinical Effectiveness and Decision Science Program (APDTO panel has previously reviewed all but insomnia):
 - ✓ Community-acquired pneumonia
 - ✓ Treatment strategies for symptomatic osteoarthritis (OA), including joint replacement
 - ✓ Surgical options for hip fracture in the elderly
 - ✓ Studies of patients with non-muscle invasive bladder cancer (NMIBC) who failed first-line treatments
 - ✓ Treatments for insomnia
- Revisit topics to obtain Advisory Panelists' input on PCORI's investment in future funding initiatives – do any warrant special emphasis, larger investments, or targeted funding announcements?
- Prioritize topics by importance and alignment with PCORI's Research Criteria



PCORI Tier 3 Research Criteria

- **Patient-Centeredness:** is the comparison relevant to patients, their caregivers, clinicians, or other key stakeholders and are the outcomes relevant to patients?
- **Impact of the Condition on the Health of Individuals and Populations:** Is the condition or disease associated with a significant burden in the U.S. population, in terms of disease prevalence, costs to society, loss of productivity or individual suffering?
- **Assessment of Current Options:** Does the topic reflect an important evidence gap related to current options that is not being addressed by ongoing research?
- **Likelihood of Implementation in Practice:** Would new information generated by research be likely to have an impact in practice? (E.g., do one or more major stakeholder groups endorse the question?)
- **Durability of Information:** Would new information on this topic remain current for several years, or would it be rendered obsolete quickly by new technologies or subsequent studies?



Pragmatic Clinical Studies

Background and Purpose

- Program launched in early 2014 to expand support of high-priority patient-centered comparative clinical effectiveness research
- Program's purpose is to fund large pragmatic clinical trials, large simple trials, or large-scale observational studies that compare two or more meaningful clinical alternatives (including complex interventions)
- Initiative emphasizes that we seek pragmatic studies appropriate for a specific high-priority question
- High-priority research questions may come from several sources:
 - IOM's Priorities for CER
 - AHRQ's Future Research Needs Projects
 - Topics recommended by patients and stakeholders through PCORI's topic prioritization process (PCORI Priority Topics)



Community Acquired Pneumonia:

History of Topic and Funding

- **Nominator / Topic Source:** American College of Physicians -Clinical Guidelines Committee
- **Reviewed by APDTO Advisory Panel:** May 2015
- **Added to PCS Priority List:** Cycle 2, 2016 funding announcement
- **Current PCS Priority List Question:** What is the comparative effectiveness and safety of alternative FDA-approved antibiotic regimens in the empiric outpatient treatment of adults with community-acquired pneumonia?
- **PCORI Funding:**
 - No studies funded under this priority topic to date
 - Received a few applications in PCS Cycle 2, 2017 - currently under review



Community Acquired Pneumonia:

Topic Brief Summary

- **Prevalence:**
 - In 2012, 1.1 million persons were diagnosed with CAP
 - Estimated 915,900 episodes of CAP occur in adults 65+ each year in the U.S.
- **Available Treatment Options:**
 - Antibiotics for CAP caused by bacteria: Narrow-spectrum recommended for young patients; broad-spectrum used in older patients or those with comorbidities and/or severe disease
- **Decisional Dilemma**
 - Questions remain about the usefulness of diagnostic tests and their impact on patient-centered outcomes, as well as regarding the selection of narrow vs broad-spectrum antibiotics and the duration of treatment



Community Acquired Pneumonia:

Topic Brief Summary

- **Patient Centered Outcomes of Interest:**
 - Hospital and ICU admission rate, length of stay and readmission rate
 - Short-term disability; days away from work/school/normal activities; lost productivity
 - Cost of care
 - Patient satisfaction: emergence of resistance, infection
 - Drug toxicity; adverse events; mortality
- **Evidence Gaps / Research Areas of Interest:**
 - Comparative effectiveness (CE) of alternative approaches to treating CAP (broad vs narrow-spectrum for empiric and/or definitive therapy) – variable comparisons in RCTs have limited ability to pool data
 - CE of new techniques to determine pathogens and establish diagnosis to choose the most appropriate antibiotic regimens or avoid them when unnecessary
 - CE of shorter vs longer antibiotic therapy and approaches to de-escalate antibiotic therapy



Osteoarthritis:

History of Topic and Funding

- **Nominator / Topic Source:** Institute of Medicine
- **Reviewed by APDTO Advisory Panel:** April 2013
- **Added to PCS Priority List:** Spring 2014 funding announcement
- **Current PCS Priority List Question:** Compare the effectiveness of treatment strategies for symptomatic osteoarthritis (OA) including joint replacement
- **PCORI Funding:**
 - No PCS projects funded under this priority topic to date
 - PCORI has funded several smaller projects focusing on osteoarthritis through the Broad PFAs



Osteoarthritis:

Topic Brief Summary

- **Prevalence:**
 - 27 million US adults (>10% of population) aged 18 years and older have one or more type of clinical OA. Prevalence varies by definition of OA, location of OA, and populations studied
- **Available Treatment Options:**
 - Pain relievers and nonsteroidal anti-inflammatory drugs
 - Exercise and physical therapy; weight loss
 - Combination management
 - Joint surgery
- **Decisional Dilemma**
 - Given the high burden of disease and impact on patient-centered outcomes what management strategy (or combination) works best for key subgroups?
 - What are the comparative benefits/harms of different management strategies and which are effective in fostering long-term adherence in real-world clinical settings?



Osteoarthritis:

Topic Brief Summary

- **Patient Centered Outcomes of Interest:**
 - Quality of life
 - Productivity
 - Functional capacity
 - Mortality
- **Evidence Gaps / Research Areas of Interest**
 - There are few comparative effectiveness studies of exercise and physical therapy strategies or multimodal treatments; understanding the best interventions in this area could improve care and outcomes by establishing a set of “best practices”
 - Methods for implementing and sustaining effective treatment strategies in real-world clinical settings are lacking; particularly for non-medication based strategies
 - Comparative effectiveness research is needed to determine which key subgroups of patients do best with a given management strategy



Hip Fracture:

History of Topic and Funding

- **Nominator / Topic Source:** Agency for Healthcare Research and Quality
- **Reviewed by APDTO Advisory Panel:** August 2014
- **Added to PCS Priority List:** Winter 2015 funding announcement
- **Current PCS Priority List Question:** Compare the effectiveness of different surgical treatments in elderly patients with hip fractures in terms of functionality and other patient-centered outcomes
- **PCORI Funding:**
 - One related PCS project funded: “A Practical Intervention to Improve Patient-Centered Outcomes after Hip Fractures Among Older Adults”
 - Compares spinal vs general anesthesia on recovery of walking 60 days after surgery for hip fracture in adults 50+



Hip Fracture:

Topic Brief Summary

- **Incidence:**
 - 957 per 100,000 for women and 414 per 100,000 for men from 1986 to 2005
- **Available Treatment Options:**
 - Surgery: surgical treatment options vary widely by fracture type (e.g. hemi- or total arthroplasty, internal fixation, implants, etc.)
- **Decisional Dilemma**
 - Limited evidence exists to answer questions about the relationship between the selected surgical intervention or implant variables and patient outcomes, and between patient variables, fracture type, and patient outcomes
 - There remains a high degree of uncertainty as to the best way to treat unstable hip fractures and about which treatment options are best for various clinical populations



Hip Fracture:

Topic Brief Summary

- **Patient Centered Outcomes of Interest:**
 - Pain, quality of life
 - Functional capacity/impairment/independent living
 - Prolonged rehabilitation
 - Mortality
- **Evidence Gaps / Research Areas of Interest:**
 - Research is needed to identify predictors of short time-to-recovery and functional outcomes as well as the impact of suboptimal surgical quality on functional outcomes
 - Comparative effectiveness of optimal treatment strategies for different types of fractures or defined populations and between-class or within-class comparisons (e.g. nails vs screws, etc.)



Non-Muscle-Invasive Bladder Cancer:

History of Topic and Funding

- **Nominator / Topic Source:** American Urological Association
- **Reviewed by APDTO Advisory Panel:** November 2016
- **Added to PCS Priority List:** Cycle 1, 2017 funding announcement
- **Current PCS Priority List Question:** Compare the effectiveness of treatments in patients with intermediate or high-risk NMIBC who have failed first-line induction intravesical therapy with BCG or other agents
- **PCORI Funding:**
 - No studies funded under this priority topic to date



Non-Muscle-Invasive Bladder Cancer

Topic Brief Summary

- **Incidence:**
 - Estimated 76,960 new cases of bladder cancer in the U.S. in 2016 (58,950 in men); 5% of all incident cancers in the U.S.
- **Available Treatment Options:**
 - Main treatment is transurethral resection of bladder tumor (TURBT)
 - Adjuvant intravesical therapy: BCG; various chemotherapy agents or interferon immunotherapy
 - Radical cystectomy may be an option when there is high-risk of progression to muscle-invasive bladder cancer
- **Decisional Dilemma:**
 - The best management of patients with intermediate- or high-risk NMIBC that have failed induction intravesical therapy with BCG remains uncertain. Head-to-head comparisons have shown few clear differences in outcomes, with moderate to low strength of evidence



Non-Muscle-Invasive Bladder Cancer:

Topic Brief Summary

- **Patient Centered Outcomes:**

- Mortality
- Need for cystectomy
- Progression to muscle-invasive bladder cancer
- Bladder cancer recurrence
- Quality of life

- **Evidence Gaps / Research Areas of Interest:**

- Comparative effectiveness of various intravesical agents, cystectomy or bladder-preserving alternatives to cystectomy, and/or novel agents on patient outcomes after failure of first-line therapy
- RCTs that compare initial cystectomy with intravesical therapy or other bladder-preserving therapies for high-risk NMIBC could provide information to inform treatment decisions
- Comparative effectiveness of approaches to reduce discomfort and/or adverse effects in patients



Insomnia:

History of Topic and Funding

- **Nominator / Topic Source:** PCORI
- **Reviewed by APDTO Advisory Panel:** N/A
- **Added to PCS Priority List:** Cycle 2, 2017 funding announcement
- **Current PCS Priority List Question:** Compare the benefits and harms of pharmacologic, psychological, or combination treatments for treating different types of insomnia on sleep and patient-centered outcomes including next-day function, mood, and quality of life
- **PCORI Funding:**
 - Topic added to most recent PCS funding announcement
 - Have not yet received applications addressing this priority topic



Insomnia:

Topic Brief Summary

- **Prevalence**
 - Approximately 1/3 of adults suffer from occasional symptoms of insomnia
 - Approximately 6% of adults experience chronic and persistent insomnia
- **Available Treatment Options**
 - Psychological Interventions: cognitive behavioral therapy (CBT-I); multicomponent behavioral/brief behavioral therapy (BBT)
 - Pharmacological Interventions: over the counter (sedating antihistamines, melatonin); prescription sleep aids
- **Decisional Dilemma**
 - Complexity of treatment choice due to number of options
 - Questions regarding risks and benefits of available options: few head-to head studies and quality of evidence ranges from insufficient to moderate



Insomnia:

Topic Brief Summary

- **Patient-Centered Outcomes of Interest**
 - Sleep outcomes
 - Next-day function, mood, quality of life
 - Adverse effects of treatments
- **Evidence Gaps / Research Areas of Interest:**
 - Comparative effectiveness of various psychological and pharmacological treatment options
 - Long-term safety and effectiveness of pharmacological options (follow-up over one year)
 - Head-to-head comparisons of alternative methods for delivering CBT-I given limited availability of providers
 - Trials that include baseline data on sleep outcomes and patient-reported mood, quality of life outcomes



Ranking and Prioritization of Topics

- Based on a review of the topics and their alignment with PCORI's research criteria, how would you rank the topics in order of importance?
- What are PCORI's next steps for funding initiatives and investments in each topic?
- Do any of the topics rise to the level of a special emphasis question or targeted PFA?



Wrap Up

- Next in-person meeting Spring 2018
- Questions/Comments?



Thank you for your participation

**Advisory Panel on Assessment of Prevention,
Diagnosis, and Treatment Options**

**Advisory Panel on Communication and
Dissemination Research**

November 3, 2017



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