CB7-03:

A Diverse Autism Registry for Etiologic and Effectiveness Studies: Prevalence and Demographic Characteristics

Lisa Croen[1]; Marta Lutsky[1]; Vincent Yau[1]; Yinge Qian[1]; Frances Lynch[2]; Kathy Pearson[2]; Ashli Owen-Smith[3]; Robert Davis[3]; Janet Cummings[4]; Karen Coleman[5]; Virginia Quinn[6]; Jeanne Madden[7]; Matthew Lakoma[7]

[1]Kaiser Permanente Northern California; [2]Kaiser Permanente Northwest; [3]Kaiser Permanente Southeast; [4]Emory University; [5]Kaiser Permanente Southern California; [6]Kaiser Permanente Southern California; [7]Harvard Pilgrim Health Care Institute, Harvard Medical School

Background/Aims: Diagnoses of Autism Spectrum Disorders (ASDs) continue to rise, yet few effectiveness studies of autism treatments exist. The major limitations to conducting such studies include locating, characterizing, and enrolling sufficiently large and representative ASD patient samples. This project has created a large, comprehensive, and dynamic ASD registry across five integrated not-for-profit health systems participating in the NIMH Mental Health Research Network (MHRN). This registry will enable rapid identification and enrollment of patients into large-scale studies investigating treatment interventions as well as pharmacogenomic and etiologic hypotheses. **Methods:** Nine study sites compose the MHRN, which serve a diverse population of 10 million people in 11 states. The ASD registry is based in five MHRN sites: Kaiser Permanente (KP) Northern California, KP Southern California, KP Northwest, KP Georgia, and Harvard Pilgrim Health Plan. ASD registry investigators developed algorithms which identify children with ASD from electronic medical records and health claims data. ASD diagnoses are validated using structured record review and expert review. Diagnostic and demographic data recorded in health plan electronic databases from 1995-2010 on all 0-17 year olds who were health plan members as of December 2010 were used to describe ASD prevalence in this population. **Results:** Overall prevalence of ASD was 1.2% (23,811/2,049,442), and ranged from 0.86% (458/53,297) to 1.6% (3,425/212,375) across all sites. Most ASD cases were 10-14 years old (36% (8,165/22,606), range: 35% (2,717/7,775) - 41% (617/1,515)) or 5-9 (35% (7,848/22,606), range: 30% (459/1,515) - 37% (161/432)). Fewer cases were 15-17 years old (18% (4,064/22,606), range: 16% (1,578/9,641) - 22% (329/1,515)) or 0-4 years old (11% (2,529/22,606), range: 7% (110/1,515) - 12% (1,159/9,641)). The overall ratio of male to female cases was 4.29 (range: 3.71-5.11). Of children diagnosed with an ASD, 59% were diagnosed with Autistic Disorder ((14,061/23,811), range: 33% (1,131/3,425) - 71% (7,154/10,068)). **Discussion:** Demographic diversity and extensive electronic health records make this registry an ideal environment for studying ASDs. Future aims include investigating use of services not provided by HMOs, collection of genetic material from individuals and families with ASD's, and harmonization of data from many sources such as birth certificates and census data.

Keywords: Autism Spectrum Disorders; Autism Registry; Mental Health

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CB7-04:

Generalized Anxiety and Depression Among Chronic Pain Patients on Opioid Therapy are Associated With Higher Pain Impairment, Increased Service Utilization and Poorer Health Status

Joseph Boscarino[1]; Stuart Hoffman[1]; Glenn Gerhard[1]; John Han[1]; Margaret Rukstalis[1]; Porat Erlich[1]; Walter Stewart[1];

[1]Geisinger Health System

Background/Aims: Chronic pain patients on prescription opioids are thought to be at risk for multiple co-morbidities, including mood and anxiety disorders, which can complicate patient care. **Methods:** We undertook a phone survey of 705 chronic pain patients on prescription opioids at Geisinger Clinic, a large multi-specialty practice located in central PA, to assess this potential problem. Patients who had received 5+ orders for opioids in the past 12 months for non-cancer pain were eligible for study interviews. Mental disorders were identified using a diagnostic survey that utilized Diagnostic and Statistical Manual of Mental Disorder, Version IV, criteria for generalized anxiety disorder (GAD), posttraumatic stress disorder (PTSD), major depression (MD), and prescription opioid dependence (POD). The study also collected demographic, environmental, and other health status data. Functional pain impairment was assessed using the Brief Pain Inventory (BPI). **Findings:** Altogether, 37% (95% CI = 33-41%) of study patients met lifetime criteria for POD, 15% (95% CI = 12-18%) for PTSD, 13% (95% CI = 11-17%) for GAD, and 38% (95% CI = 34-42%) met lifetime criteria for MD. In addition, 27% (95% CI = 24-31%) of these pain patients had a history of suicidal thoughts. Controlling for potential confounders, including gender, age, cigarette pack-years, obesity, and the presence of other mental disorders, GAD was significantly associated with greater pain impairment ($p=0.01$), higher service utilization ($p<0.001$), history of suicidal thoughts, ($p=0.001$), and poorer reported health status ($p=0.008$). Similarly, MD was significantly associated with history of suicidal thoughts, ($p<0.001$), poorer reported health status ($p=0.037$), and history of substance abuse treatment ($p=0.002$). PTSD and POD were not associated with these adverse outcomes, once GAD and MD were controlled. **Discussion:** Chronic pain patients receiving opioids have a significant history of mental health disorders, including GAD and MD and these comorbidities are associated with increased pain impairment, higher service utilization, suicidal thoughts, and poorer health status, potentially complicating patient care. Our study suggests that chronic pain patients on opioid therapy may benefit by the better integration of mental health services into both primary and specialty care services.

Keywords: Chronic Pain; Opioids; Mental Health

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CB7-05:

Incremental Cost-effectiveness of Preventing Depression in At-risk Adolescents

John Dickerson[1]; Greg Clarke[1]; William Beardslee[2]; V. Robin Weersing[3]; Tracey Gladstone[4]; Giovanna Porta[5]; David Brent[5]; Lynn DeBar[1]; Judy Garber[6]

[1]Kaiser Permanente Northwest; [2]Harvard University; [3]San Diego State University; [4]Wellesley College; [5]University of Pittsburgh; [6]Vanderbilt University

Background/Aims: Adolescent depression is common and leads to many negative personal, social, and economic consequences for youth and their families; unfortunately, most youth who experience major depression do not receive any treatment. Depression prevention programs can reduce these negative consequences, but they must be affordable to be widely disseminated and useful for health care systems. Decision-makers need to weigh relative costs and benefits of providing efficacious prevention programs to depressed adolescents, but little cost-effectiveness analysis exists. The Prevention of Depression trial (POD) was a brief prevention program that compared a group cognitive- behavioral preventive (CBP) intervention to usual care (UC) to reduce depression risk in at-risk youth; the intervention decreased the number of days with depression. We present an incremental cost-effectiveness analysis of the group CBP program relative to UC, from the societal perspective, for 9 months following the intervention. **Methods:** POD was conducted in four U.S. academic and community clinics. Participants were 316 youth aged 13–17 with a past history of depression and/or current elevated, but sub-diagnostic, depressive symptoms. They were randomly assigned to the CBP group consisting of 8 weekly, 90- minute group sessions followed by 6 monthly continuation sessions or to UC alone. The main clinical outcome measures were depression-free days (DFD) and quality-adjusted life-years based on DFD (DFD-QALYs). Costs of intervention, non-protocol services, and families were included. **Results:** CBP achieved 13 additional DFD ($p=.008$), 0.022 more DFD-QALYs ($p=.008$). CBP cost $591 (SD=286) on average. Cost per DFD was $59 (ICER = $59; 95% CI: 11-263), $35,434 per DFD-QALY (ICER=$35,434; 95% CI: 6,350 – 157,594). Cost-effectiveness acceptability curve analyses suggest a 69% probability that CBP is more cost-effective at a willingness to pay of $50,000 per QALY. CBP had a higher net benefit for youth whose parent's depression was in remission at baseline. **Discussion:** The societal cost-effectiveness of POD is comparable to or better than that of many health care services currently covered under most insurance programs. The program is particularly cost effective for the sub-group of youth whose parent's depression was in remission at baseline.

Keywords: Depression; At-risk Adolescents; Mental Health

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