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### **EDUCATION**

8/1998-5/2002 BS, Microbiology and Cell Science, *Highest Honors*  
University of Florida, Gainesville, FL

5/2002-5/2007 MD  
Florida State University College of Medicine, Tallahassee, FL

9/2005-11/2007 MPH, Health Policy and Management  
Harvard University School of Public Health, Boston, MA

07/2010-12/2011 MS, Health and Health Care Research  
University of Michigan, Ann Arbor, MI

### **POST-DOCTORAL TRAINING**

6/2007-6/2010 House Officer  
Department of Pediatrics and Communicable Diseases  
University of Michigan Health System, Ann Arbor, MI

7/2010-6/2012 Robert Wood Johnson Foundation Clinical Scholar  
University of Michigan Health System, Ann Arbor, MI

7/2010-6/2013 Neonatal-Perinatal Medicine Fellow  
Department of Pediatrics and Communicable Diseases  
University of Michigan Health System, Ann Arbor, MI

### **Certifications**

2005-present Pediatric Advanced Life Support  
2005-present Basic Life Support/Advanced Cardiac Life Support  
2007-present Neonatal Resuscitation Program  
2013-present Neonatal Resuscitation Program Instructor

### **License**

5/2010-present Board of Medicine, State of Michigan #4301090178  
5/2013-present Board of Medicine, State of Tennessee #50051

### **Board Certification**

10/2011-present American Board of Pediatrics – Pediatrics  
04/2014-present American Board of Pediatrics – Neonatal-Perinatal Medicine

## **ACADEMIC, ADMINISTRATIVE, AND CLINICAL APPOINTMENTS**

7/2013-present      Assistant Professor of Pediatrics and Health Policy  
                                 Division of Neonatology  
                                 Vanderbilt Center for Health Services Research  
                                 Vanderbilt Center for Addiction Research  
                                 Vanderbilt University  
                                 Nashville, TN

## **VISITING APPOINTMENTS**

2016                      Visiting Professor, Tufts University School of Medicine,  
                                 Department of Pediatrics, Division of Newborn Medicine. March  
                                 10, 2016

2016                      Marie McCormick Lectureship in Neonatal Health Services  
                                 Research and Epidemiology, Visiting Professor, Harvard Medical  
                                 School, Beth Israel Deaconess Medical Center Department of  
                                 Neonatology, May 19, 2016

2016                      Visiting Professor, Harvard Medical School, Boston Children's  
                                 Hospital Division of Newborn Medicine, May 20, 2016

2017                      Visiting Professor, University of Michigan, Department of  
                                 Pediatrics, Division of Neonatal-Perinatal Medicine, February 21-  
                                 22, 2017

## **GOVERNMENT SERVICE**

### *Appointments*

8/2013-6/2015              Senior Science Policy Advisor, Office of National Drug Control  
                                 Policy, Executive Office of the President, The White House,  
                                 Washington, D.C.

7/2014-present              Advisor, Division of Family Health and Wellness, Tennessee  
                                 Department of Health, State of Tennessee, Nashville, Tennessee

6/2015-9/2016              Expert consultant, *A Guide to the Management of Opioid-  
                                 Dependent Pregnant and Parenting Women and Their Children*,  
                                 Substance Abuse and Mental Health Services Administration,  
                                 Department of Health and Human Services, Rockville, MD

7/2015-present              Advisory Board Member, Multi-State Plan Program Advisory  
                                 Board, National Healthcare Operations, Healthcare & Insurance  
                                 Division, U.S. Office of Personnel Management, Washington, D.C.

6/2016-present              Special Government Employee, Analgesic Drug Products  
                                 Advisory Committee, Division of Anesthesia, Analgesia and

Addiction Products, U.S. Food and Drug Administration,  
Department of Health and Human Services, Silver Spring, MD.

September 15-16, 2016: Voting Member, Joint Meeting of the Anesthetic and Analgesic Drug Products Advisory Committee, the Drug Safety and Risk Management Advisory Committee, and the Pediatric Advisory Committee Meeting to discuss the appropriate development plans for establishing the safety and efficacy of prescription opioid analgesics for pediatric patients.

8/2016-11/2016 Member, Technical Advisory Group, Neonatal Episodes of Care, Health Care Financing and Administration, State of Tennessee, Nashville, Tennessee

*Reviews*  
2014

Expert Reviewer, Substance Abuse and Mental Health Services Administration and National Center on Substance Abuse and Child Welfare, *Medication-Assisted Treatment for Pregnant Women with Opioid Dependence: Practice and Policy Considerations for Health Care, Addiction Treatment Providers, Child Welfare and Courts*

*Testimony*  
6/24/2015

Witness, United States House of Representatives, Energy and Commerce Committee, Health Subcommittee. Examining Public Health Legislation. Testimony provided on the Protecting Our Infants Act of 2015 and neonatal abstinence syndrome.

<http://energycommerce.house.gov/hearing/examining-public-health-legislation-hr-2820-hr-1344-and-hr-1462>

3/15/2016

Witness, Tennessee General Assembly, House Criminal Justice Subcommittee, Testimony provided on House Bill 1660 and neonatal abstinence syndrome.

<http://wapp.capitol.tn.gov/apps/BillInfo/default.aspx?BillNumber=HB1660&GA=109>

**PROFESSIONAL ASSOCIATIONS**

2003-present

American Academy of Pediatrics  
Section on Neonatal-Perinatal Medicine  
Section on Young Physicians

2014-present

AcademyHealth

2015-present

Society for Pediatric Research

## **SCIENTIFIC REVIEWER FOR PEER-REVIEWED JOURNALS**

2011-present	<i>Journal of Health Care for the Poor and Underserved</i>
2012-present	<i>American Journal of Preventive Medicine</i>
2012-present	<i>Pediatrics</i>
2013-present	<i>American Journal of Public Health</i>
2013-present	<i>The Journal of the American Medical Association</i>
2014-present	<i>Maternal and Child Health Journal</i>
2014-present	<i>Journal of Perinatology</i>
2014-present	<i>Pediatric Drugs</i>
2015-present	<i>American Journal of Perinatology</i>
2015-present	<i>Academic Pediatrics</i>
2015-present	<i>The Joint Commission Journal on Quality and Patient Safety</i>
2015-present	<i>The Journal of Pediatrics</i>
2015-present	<i>Child Maltreatment</i>
2015-present	<i>The New England Journal of Medicine</i>
2016-present	<i>JAMA Pediatrics</i>
2016-present	<i>JAMA Psychiatry</i>
2016-present	<i>Addiction</i>
2016-present	<i>Harvard Journal on Legislation</i>
2016-present	<i>Health Affairs</i>
2017-present	<i>The British Medical Journal</i>
2017-present	<i>The Journal of Addiction Medicine</i>

## **National Meetings**

2015-2016	Abstracts, Pediatric Academic Societies Annual Meeting, Neonatology Health Services Research and Epidemiology
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## **SCIENTIFIC REVIEWER FOR STUDY SECTIONS**

2015	National Institutes of Health. National Institute on Drug Abuse, Behavioral Science Track Award for Rapid Transition Review, Study Section, ad hoc reviewer
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## **NATIONAL INSTITUTES OF HEALTH WORKGROUPS**

4/2016	National Institute on Child Health and Human Development of the National Institutes of Health. “Opioid Use in Pregnancy, Neonatal Abstinence Syndrome, and Childhood Outcomes Workshop” Invited speaker and participant. Rockville, Maryland
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## **ORGANIZING ROLES IN NATIONAL MEETINGS**

4/2015	Pediatric Academic Societies Annual Meeting, San Diego, CA - Moderator, Platform Presentation Session: “Neonatal Epidemiology and Health Services” - Moderator, Platform Presentation Session: “Neonatal Health Services Research” - Poster Facilitator, “Epidemiology and Health Science Services: Maternal Epidemiology I”
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- Poster Facilitator, “Epidemiology and Health Science Services: Maternal Epidemiology II”

### **ORGANIZATIONAL LEADERSHIP**

#### *American Medical Association, Chicago, IL*

2003-2004 Vice Chair, Region 4 (FL, GA, NC, SC, PR, TN, AL), Medical Student Section

2004-2005 National Chair, Community Service Committee, Medical Student Section

2005-2006 Delegate, AMA House of Delegates

- Member of the Medical Student Section Delegation
- Member of the Florida Delegation

2004-2006 National Chair, Cover the Uninsured Task Force, Medical Student Section

2005-2006 Member, Council on Medical Service

2006-2007 National Co-Chair, Health Care Access Task Force, Medical Student Section

2008-2009 Member, Legislative Advocacy Committee, Resident and Fellow Section

2010-2011 Vice Chair, Committee on Medical Education, Resident and Fellow Section

#### *Florida Medical Association, Tallahassee, FL*

2004-2005 Member, Council on Medical Economics

#### *Florida State University College of Medicine, Tallahassee, FL*

2006-2007 Member, Admissions Committee

#### *University of Michigan Health System, Ann Arbor, MI*

2007-2010 Member, Graduate Medical Education Committee Department of Pediatrics and Communicable Diseases

#### *American Academy of Pediatrics, Elk Grove Village, IL*

2008-2009 Member, Executive Committee Member, Section on Medical Students, Residents and Fellowship Trainees

2008-2009 District V Coordinator (MI, OH, IN, ON)

2010-2011 Liaison, Committee on Federal Government Affairs

- Subcommittee on Access

2015-present Member, Committee on Substance Use and Prevention

2016-present Expert consultant, Fetal Alcohol Spectrum Disorders Quality Improvement Programs

#### *Vermont Oxford Network, Burlington, VT*

2012-2015 iNICQ international quality improvement collaborative on neonatal abstinence syndrome involving more than 100 neonatal intensive care units in the United States and abroad.

- Member, Scientific Steering Committee
- Faculty member
- Expert Discussant
- Co-Author of Improvement Toolkit

*March of Dimes, Tennessee Chapter, Nashville, TN*

2015-present Member, Advocacy and Government Affairs Committee

*Department of Health Policy, Vanderbilt University School of Medicine, Nashville, TN*

2015-present Member, Faculty Search Committee

*Robert Wood Johnson Clinical Scholars Alumni Association, Chapel Hill, NC*

2016-2017 Founding Co-President

*March of Dimes, White Plains, NY*

2016-present Inaugural member, March of Dimes National Advocacy Leaders Team

*OptumLabs, Cambridge, MA*

2017-present Expert Advisory Panel, Collaborative to Transform Opioid Use and Pain Management

**SELECTED COMMUNITY SERVICE**

2009 Alpha House Shelter, Ann Arbor, MI  
 2009 Hope Clinic International, Esteli, Nicaragua  
 2014-2016 Middle Tennessee Neonatal Abstinence Syndrome Community Collaborative  
 2015-present Davidson County, Tennessee, Fetal Infant Mortality Review Committee

**HONORS AND AWARDS**

2004 American Medical Association Foundation Excellence in Medicine Leadership Award  
 2004 Florida Medical Association Mullen Award for Outstanding Community Service  
 2006 Florida Medical Foundation Scholarship  
 2007 Florida State University College of Medicine Individual Achievement Award for "commitment to ensuring quality medical care for those most in need."  
 2010 Top Presentation, Research Day, University of Michigan Department of Pediatrics (Medicaid: A Program for Children? Trends From 1991-2005)  
 2011 Pediatric Academic Societies Young Investigator's Travel Award (Regional Variation in Lumbar Punctures for Early Onset Neonatal Sepsis)

- 2012 Academic Pediatric Association Research Award; Best Abstract by a Fellow – Pediatric Academic Societies (Federal Medical Assistance Percentage Policy and Medicaid/CHIP Enrollment for Children)
- 2013 Top 20 most influential articles published in 2012 - RWJF *Year in Research* poll (Neonatal Abstinence Syndrome and Associated Healthcare Expenditures – United States, 2000-2009)
- 2013 National Finalist – White House Fellows Program
- 2013, 2015, 2016 NIH Loan Repayment Award for Pediatric Research – National Institute on Drug Abuse
- 2015 Burroughs-Wellcome Fund Trainee Travel Award, Translational Science 2015 Meeting (Higher Dose and Duration of Maternal Prescription Opioid Use Increases Risk of Neonatal Abstinence Syndrome)
- 2016 Tennessee Chapter of the American Academy of Pediatrics Early Career Physician of the Year
- 2017 Nemours Child Health Services Research Award, AcademyHealth

### **TEACHING ACTIVITIES**

- 2013-present Division of Neonatology – Pediatric Resident Core Curriculum Lecture Series – “Neonatal Abstinence Syndrome.”
- 2014-2016 Division of Neonatology Journal Club – Fellow mentor and co-leader
- 2014-present Department of Pediatrics Fellow Core Curriculum – Biostatistics

### **RESEARCH SUPERVISION**

#### *Research Mentor for Medical Students*

- 2014-2016 M. Katherine Charles, MS4\*  
Project title: Infant Sex and Risk of Neonatal Abstinence Syndrome  
Current Position: House Officer, Duke University, Durham, NC

#### *Research Mentor for Pediatric Fellows*

- 2015-2017 Faouzi Issam Maalouf, MD\*  
Project title: Efficacy of Outpatient Treatment and Management for Neonatal Abstinence Syndrome  
Current Position: Assistant Professor, American University Beirut, Beirut, Lebanon
- 2015-2017 Jason Pryor, MD, MPH  
Project title: Patterns of alcohol consumption among women with intended pregnancies  
Current Position: Neonatologist, Carilion Clinic, Roanoke, VA

2015-2016 Nicole L. G. Villapiano, MD, MSc.  
Project: Rural and Urban Differences in Neonatal Abstinence Syndrome and Maternal Opioid Use, 2004 to 2013  
Current Position: University of Michigan, Robert Wood Johnson Foundation Clinical Scholar, Ann Arbor, MI

2016-present Lauren Sanlorenzo, MD, MST\*  
Project title: The Impact of Polysubstance Exposure on Neonatal Abstinence Syndrome Severity  
Current Position: Vanderbilt University, Neonatology Fellow, Nashville, TN

2017-present Susan Lopata, MD\*  
Project title: Improving Systems of Care for Infants Exposed to Hepatitis C  
Current Position: Vanderbilt University, Neonatology Fellow, Nashville, TN

*Research Mentor for Junior Faculty Members*

2016-present Samantha Sittig Goldfarb, DrPH, MPH  
Florida State University College of Medicine  
Project title: Evidence-Based Policies for Prenatal Substance Abuse

*AcademyHealth/March of Dimes New Investigator Small Grant Program Mentor*

Danielle Atkins, Ph.D., MPA  
University of Central Florida College of Health and Public Affairs  
Project title: The Effect of Prenatal Substance Use Policies on Maternal Substance Abuse and Infant Health

\*Primary mentor

**GRANTS**

*Current Research Support:*

Source: National Institute on Drug Abuse, National Institutes of Health  
1K23DA038720  
Title: Neonatal Abstinence Syndrome: Risk of Drug Withdrawal in Opioid-Exposed Infants  
Role: Principal Investigator  
Costs: \$810,275.07 (5 years)  
Effort: 75% (2/2015-1/2020)

Source: The Memorial Foundation  
Title: Improving Care for Infants with Neonatal Abstinence Syndrome  
Role: Principal Investigator  
Costs: \$281,734 (2 years)  
Effort: 5% concurrent effort (9/2017-8/2019)

Source: National Institutes of Health, Office of the Director  
U2-COD023375-02S1  
Title: Project ECHO (Environmental influences on Child Health Outcomes)  
Coordination Center, Supplement on Neonatal Opioid Withdrawal  
Syndrome  
Role: Co-Investigator (PI: P. Brian Smith, MD, MPH, MHS, Duke University)  
Costs: \$500,000 (2 years)  
Effort: 10% concurrent effort (10/2017-9/2018), 5% (10/2018-9/2019)

*Completed Research Support:*

Source: The Robert Wood Johnson Foundation  
Title: Robert Wood Johnson Foundation Clinical Scholars Program  
Role: Fellow in health services and health policy research  
Costs: \$250,000 (2 years)  
Effort: 80% (7/2010-6/2012)

Source: National Institutes of Health and Vanderbilt Clinical Research Scholars  
Program KL2 - 5KL2TR000446-08  
Title: Neonatal Abstinence Syndrome: Risk of Drug Withdrawal in Opioid-  
Exposed Infants  
Role: Principal Investigator  
Costs: \$450,000 (3 years)  
Effort: 75% (7/2014-1/2015)

Source: United States Department of Health and Human Services, Health  
Resources and Services Administration and the State of Tennessee  
Department of Health  
Title: Prescription Opioid Prescribing Patterns as Predictors of Neonatal  
Abstinence Syndrome  
Role: Principal Investigator  
Costs: \$110,690 (1 year)  
Effort: 10% concurrent effort (4/2014-6/2015)

Source: National Institute for Health Care Management Foundation  
Title: The Prescription Opioid Epidemic: Understanding its Complications and  
the Effectiveness of State Policies  
Role: Principal Investigator  
Costs: \$57,072 (1 year)  
Effort: Concurrent effort (1/2016-6/2017)

*Pending/Under Review:*

Source: National Institute on Drug Abuse, National Institutes of Health  
Title: Improving Access to Treatment for Women with Opioid Use Disorder  
Role: Principal Investigator

Costs: \$1,576,455.12 (4 years)  
Effort: 25%

Source: National Institute on Drug Abuse, National Institutes of Health  
Title: An Exploratory Analysis of the Association of State Policies with Neonatal Abstinence Syndrome  
Role: R21, Consultant (PI: Faherty, RAND Corporation)  
Effort: Consultant

### **PEER-REVIEWED PUBLICATIONS**

1. Odetola FO, Mann C, Hansen KW, **Patrick S**, Bratton SL. Source of Admission and Outcomes for Critically Injured Children in the Mountain States. *Archives of Pediatrics and Adolescent Medicine*. 2010;164(3):277-282
2. **Patrick SW**, Schumacher RE, Benneyworth BD, Krans EE, McAllister JM, Davis MM. Neonatal Abstinence Syndrome and Associated Healthcare Expenditures – United States, 2000-2009. *JAMA*. 2012 May 9;307(18):1934-40. Epub 2012 Apr 30.
3. **Patrick SW**, Choi H, Davis MM. Increase In Federal Match Associated With Significant Gains In Coverage For Children Through Medicaid And CHIP. *Health Affairs*. 2012 Aug;31(8):1796-802.
4. **Patrick SW**, Schumacher RE, Davis MM. Variation in Lumbar Punctures for Early Onset Neonatal Sepsis: A Nationally Representative Serial Cross-Sectional Analysis, 2003–2009. *BMC Pediatrics*. 2012, 12:134.
5. **Patrick SW**, Freed GL. Intergenerational Enrollment and Expenditure Changes in Medicaid: Trends from 1991 to 2005. *BMC Health Services Research*. 2012, 12:327.
6. **Patrick SW**, Davis MM, Meddings JA, Hieber S, Lee GM, Stillwell TL, Chenoweth, CE, Espinosa C, Schumacher RE. Accuracy of Hospital Administrative Data in Reporting Central-Line Associated Bloodstream Infections in Newborns. *Pediatrics*. 2013-03;131 Supplement 1:S75-80.
7. Sun GH, Auger KA, Aliu O, **Patrick SW**, DeMonner S, Davis MM. Post-Tonsillectomy Hemorrhage in Children with von Willebrand Disease and Hemophilia. *JAMA Otolaryngology - Head & Neck Surgery*. 2013;139(3):245-249..
8. Sun GH, Auger KA, Aliu O, **Patrick SW**, Demonner S, Davis MM. Variation in Inpatient Tonsillectomy Costs Within and Between US Hospitals Attributable to Postoperative Complications. *Med Care*. 2013 Dec;51(12):1048-54.
9. Haggins A, **Patrick SW**, Demonner S, Davis MM. When Coverage Expands: CHIP as a Natural Experiment in Utilization of Healthcare Services. *Academic Emergency Medicine*. 2013 Oct;20(10):1026-32..
10. Harris MJ, Gay JC, Neef JM, **Patrick SW**, Sedman, A. Comparison of Administrative Data versus Infection Control Data in Identifying Central Line-Associated Blood Stream Infections in Children’s Hospitals. *Hospital Pediatrics*. 2013; 3:307-313.

11. Auger KA, **Patrick SW**, Davis MM. Infant Hospitalizations for Pertussis Before and After Tdap Recommendations For Adolescents. *Pediatrics*, 2013 Nov;132(5):e1149-55. Epub 2013 Oct 21.
12. **Patrick SW**, Kaplan HC, Passarella M, Davis MM, Lorch SA. Variation in Treatment of Neonatal Abstinence Syndrome Among US Children's Hospitals, 2004-2011. *Journal of Perinatology* 2014 Nov;34(11):867-72. Epub 2014 Jun 12.
13. **Patrick SW**, Kawai AT, Kleinman K, Jin R, Vaz L, Gay C, Kassler W, Goldmann D, Lee GM. Significant Decreases in Healthcare-Associated Infections Among Hospitalized Children in the US from 2007-2012. *Pediatrics*. 2014 Oct;134(4):705-12. Epub 2014 Sep 8.
14. Warren MD, Miller AM, Traylor J, Bauer A, **Patrick SW**. Implementation of a Statewide Surveillance System for Neonatal Abstinence Syndrome — Tennessee, 2013. *MMWR Morbidity and Mortality Weekly Report*. 2015 Feb 13;64(5):125-8.
15. **Patrick SW**, Dudley J, Martin PR, Harrell FE, Warren MD, Hartmann KE, Ely EW, Grijalva GC, Cooper WO. Prescription Opioid Epidemic and Infant Outcomes. *Pediatrics*. 2015 May;135(5):842-850. Epub 2015 April 13.
16. Tolia V, **Patrick SW**, Bennett M, Sousa J, Smith PB, Clark R, Spitzer AR. Increasing Neonatal Abstinence Syndrome in US Neonatal Intensive Care Units. *The New England Journal of Medicine*. 2015 May 28;372(22):2118-26 Epub 2015 Apr 26.
17. **Patrick SW**, Davis MM, Lehmann CU, Cooper WO. Increasing Incidence and Geographic Distribution of Neonatal Abstinence Syndrome: United States 2009-2012. *Journal of Perinatology*. 2015 Aug;35(8):650-5. Epub 2015 Apr 30.
18. **Patrick SW**, Burke JF, Biel TJ, Auger KA, Goyal N, Cooper WO. Risk of Hospital Readmission Among Infants with Neonatal Abstinence Syndrome. *Hospital Pediatrics*. 2015 Oct;5(10):513-9.
19. **Patrick SW**, Warner KE, Pordes E, Davis MM. Cigarette Tax Increase and Infant Mortality. *Pediatrics*. 2016 Jan;137(1):1-8. Epub 2015 Dec 1.
20. **Patrick SW**, Schumacher RE, Horbar JD, Buss-Frank ME, Morrow KA, Ferrelli KR, Picarillo AP, Gupta M, Soll RF. Improving Care for Infants with Neonatal Abstinence Syndrome. *Pediatrics*. 2016 May;137(5). Epub 2016 Apr 15.
21. **Patrick SW**, Fry CE, Jones TF, Buntin MB. Implementation Of Prescription Drug Monitoring Programs Associated With Reductions In Opioid-Related Death Rates. *Health Affairs*. 2016 Jul 1;35(7):1324-32. Epub 2016 Jun 22.
22. Ko JY, **Patrick SW**, Tong VT, Patel R, Lind JN, Barfield WD. Incidence of Neonatal Abstinence Syndrome in 28 States, 1999-2013. *MMWR Morbidity and Mortality Weekly Report* 2016;65:799–802.
23. Villapiano NLC, Winkelman TNA, Kozhimannil KB, Davis MM, **Patrick SW**. Rural and Urban Differences in Neonatal Abstinence Syndrome and Maternal Opioid Use, 2004 to 2013. *JAMA Pediatrics*. 2017 Feb 1;171(2):194-196.
24. Ko JY, Wolicki S, Barfield WD, **Patrick SW**, Broussard CS, Yonkers KA, Naimon R, Iskander J. CDC Grand Rounds: Public Health Strategies to Prevent Neonatal Abstinence Syndrome. *MMWR Morbidity and Mortality Weekly Report*. 2017 Mar 10;66(9):242-245.

25. Pryor JR, **Patrick SW**, Sundermann AC, Wu P, Hartmann KE. Pregnancy Intention and Maternal Alcohol Consumption. *Obstetrics & Gynecology*. 2017 Mar 6.
26. Kozhimannil KB, Graves AJ, Levy R, **Patrick SW**. Predictors of Prescription Opioid Abuse Among Pregnant US Women. *Women's Health Issues*. 2017 Mar 31.
27. Charles MK, Cooper WO, Jansson LJ, Dudley J, Slaughter J, **Patrick SW**. Male Sex Associated with Increased Risk of Neonatal Abstinence Syndrome. *Hospital Pediatrics*. 2017 May 2. pii: hpeds.2016-0218.
28. **Patrick SW**, Bauer A, Warren MD, Jones TF, Wester C. Increasing Prevalence of Hepatitis C Among Women with Recent Live Births— United States and Tennessee, 2009–2014. *MMWR Morbidity and Mortality Weekly Report*. 2017 May 12;66(18):470-473.
29. Reddy UM, Davis JM, Ren Z, Greene MF; Opioid Use in Pregnancy, Neonatal Abstinence Syndrome, and **Childhood Outcomes Workshop Invited Speakers**. Opioid Use in Pregnancy, Neonatal Abstinence Syndrome, and Childhood Outcomes: Executive Summary of a Joint Workshop by the Eunice Kennedy Shriver National Institute of Child Health and Human Development, American College of Obstetricians and Gynecologists, American Academy of Pediatrics, Society for Maternal-Fetal Medicine, Centers for Disease Control and Prevention, and the March of Dimes Foundation. *Obstetrics & Gynecology*. 2017 Jun 7.

## **REVIEWS**

30. **Patrick S**, Donn SM. New Techniques in Neonatal Ventilation: Volume-targeted ventilation can be a powerful tool in preventing neonatal lung injury. *Advance for Respiratory Care and Sleep Medicine*. 2011; 20(3): 14.
31. **Patrick SW**, Schumacher RE, Davis MM. Methods of Mortality Risk Adjustment in the Neonatal Intensive Care Unit: A 20-Year Review. *Pediatrics*. 2013-03;131 Supplement 1:S68-74.
32. Krans EE, **Patrick SW**. Opioid Use Disorder in Pregnancy: Health Policy in the Midst of an Epidemic. *Obstetrics & Gynecology*. 2016 Jul;128(1):4-10.
33. Pryor JR, Maalouf, FI, Krans EE, Schumacher RE, Cooper WO, **Patrick SW**. The Opioid Epidemic and Neonatal Abstinence Syndrome in the US: A Review of the Continuum of Care. *Archives of Disease in Childhood: Fetal and Neonatal Edition*. 2017 Jan 10.

## **INVITED EDITORIALS**

34. **Patrick SW**, Davis MM. Reformulating the Federal Match as a Key to the Sustainability of Medicaid. *JAMA Pediatrics*. 2013-03-01;167:218-20.
35. **Patrick SW**, Cooper WO. Promise and Peril: Dissemination of Findings from Studies of Drugs Used in Pregnancy and Their Association with Congenital Anomalies. *Birth Defects Research Part A: Clinical and Molecular Teratology*. 2015 Aug;103(8):729-32. Epub 2015 Jul 8.
36. **Patrick SW**. The Triple Aim for Neonatal Abstinence Syndrome. *The Journal of Pediatrics*. 2015 Dec;167(6):1189-91. Epub 2015 Oct 9.

37. **Patrick SW**. A Comprehensive Approach to the Opioid Epidemic. *Obstetrics & Gynecology*. 2017 Jun 6.
38. **Patrick SW**, Cooper WO, Davis MM. Prescribing opioids and psychotropic drugs in pregnancy. *BMJ*. 2017 Aug 2;358.

### **AMERICAN ACADEMY OF PEDIATRICS PUBLICATIONS**

#### *Committee on Substance Use and Prevention*

39. Levy SJ, Williams JF, Committee on Substance Use and Prevention. Substance Use Screening, Brief Intervention, and Referral to Treatment: Clinical Report. *Pediatrics*. 2016 Jun 20.
40. Committee on Substance Use and Prevention. Substance Use Screening, Brief Intervention, and Referral to Treatment: Policy Statement. *Pediatrics*. 2016 Jun 20.
41. Smith VC, Wilson CR, Committee on Substance Use and Prevention. Families Affected by Parental Substance Use. *Pediatrics*. 2016 Aug;138(2). Epub 2016 Jul 18.
42. Committee on Substance Use and Prevention. Medication-Assisted Treatment of Adolescents With Opioid Use Disorders. *Pediatrics*. 2016 Aug 22.
43. Siqueira LM. Committee on Substance Use and Prevention. Nicotine and Tobacco as Substances of Abuse in Children and Adolescents. *Pediatrics*. 2017 Jan;139(1).
44. **Patrick SW**, Schiff DM, Committee on Substance Use and Prevention. A Public Health Response to Opioid Use in Pregnancy. *Pediatrics*. 2017 Mar;139(3). Epub 2017 Feb 20.
45. Ryan SA, Ammerman SD, Committee on Substance Use and Prevention. Counseling Parents and Teens About Marijuana Use in the Era of Legalization of Marijuana. *Pediatrics*. 2017 Mar;139(3).

### **CASE REPORTS**

46. **Patrick SW**, Kershaw DB, Attar MA. Multiple Organ Dysfunction Following Aspiration of Maternal Blood. *The Internet Journal of Pediatrics and Neonatology*. 2012 Volume 14 Number 1.

### **LETTERS**

47. Terplan M, **Patrick S**, Jansson LM. Re: Neonatal Abstinence Syndrome and High School Performance. *Pediatrics*. 2017 Jun;139(6).
48. Schiff DA, **Patrick SW**. Treatment of Opioid Use Disorder During Pregnancy and Cases of Neonatal Abstinence Syndrome. *JAMA Pediatrics*. 2017 Jul 1;171(7):707.

### **BOOK CHAPTERS**

49. Aschner JL, **Patrick SW**, Stark AR, Lee SK. *Chapter 1. The Scope and Organization of Neonatology: North American and Global Comparisons*. Avery's Neonatology: Pathophysiology and Management of the Newborn, 7<sup>th</sup> Edition. MacDonald MG, Seshia MMK. 2016, Philadelphia, PA: Wolters Kluwer.

50. **Patrick SW**. *Chapter 12: Maternal Drug Use, Infant Exposure and Neonatal Abstinence Syndrome*. Manual of Neonatal Care, 8<sup>th</sup> Edition. Cloherty JP, et al. 2016, Philadelphia, PA: Lippincott, Williams & Wilkins.
51. Jansson LM, **Patrick SW**. *Breastfeeding and the Substance-Exposed Dyad. Opioid-Use Disorders in Pregnancy*. Wright T. *In press*.

#### **PUBLICATIONS UNDER REVIEW**

52. **Patrick SW**, Buntin MB, Martin PR, Scott TA, Dupont W, Richards M, Cooper WO. Barriers to Accessing Treatment for Opioid Use Disorder. *Under Review*.
53. **Patrick SW**, White MN, Scott TA, Cooper WO, Fry CE, Whitmore C, Buntin MB. Prescription Opioid Pain Reliever and Heroin Complications, US 2009-2013: A retrospective, repeated cross-sectional analysis. *Under Review*.
54. Thao V, Enns E, **Patrick SW**, Kozhimannil KB. Decision Science Can Help Policy Makers Identify and Evaluate Policies to Treat Opioid Use Disorder among Pregnant Women. *Under Review*.
55. Arndt BJ, Saunders J, Enns EA, **Patrick SW**, Kozhimannil KB. Primary Payer and Maternal Diagnosis of Opioid Use Disorder at Childbirth, 2003-2013. *Under Review*.
56. Winkelman TNA, Villapiano N, Kozhimannil KB, Davis MM, **Patrick SW**. Neonatal Abstinence Syndrome - Incidence and Costs Among Infants Enrolled in Medicaid, 2004-2014. *Under Review*.
57. Maalouf FI, Cooper WO, Slaughter JC, Dudley J, **Patrick SW**. The Effect of Outpatient Pharmacotherapy for Neonatal Abstinence Syndrome on Post-Discharge Outcomes. *Under Review*.

#### **NON PEER-REVIEWED PUBLICATIONS**

##### *Invited Articles*

58. **Patrick S**. Translating Research Findings to the Press and Policy Makers. *Robert Wood Johnson Foundation Human Capital Grantee Network*. June 27, 2012.
59. **Patrick SW**. Responding to the Rise in Neonatal Abstinence Syndrome. *American Academy of Pediatrics, Section on Neonatal-Perinatal Medicine Newsletter*. August 2015: 9-10.

##### *Lay Press Editorials*

60. **Patrick S**. The Tragedy of the Underinsured. *USA Today*. September 23, 2009.
61. **Patrick S**. Docs Are Not Props in Health Reform Debate. *Annarbor.com*. October 11, 2009.
62. **Patrick S**. Underinsured and Fighting for Life in a Broken System. *Daytona Beach News Journal*. March 21, 2010.
63. **Patrick S**. Healthcare Reform Law Benefits All Americans. *Annarbor.com*. March 28, 2010.
64. Congresswoman Clark K, **Patrick SW**. Congress should act on treatment for drug-dependent newborns. *The Boston Globe*. May 5, 2015.
65. Zickafoose J, **Patrick SW**. How the American Health Care Act would hurt children. *The Tennessean*. May 18, 2017

66. **Patrick SW**. Why the United States needs a national drug policy. *The Tennessean*. July 11, 2017.

*Reports*

67. Schumacher RE, **Patrick SW**. *Quality Improvement Toolkit: Controversies in Caring for Infants and Families Impacted By Neonatal Abstinence Syndrome*. Burlington, VT: Vermont Oxford Network; 2015.
68. Substance Abuse and Mental Health Services Administration (SAMHSA). (2016b). *Advancing the care of women with opioid use disorder while pregnant or parenting: Clinical indications for developing a national guide*. Rockville, MD: SAMHSA. <https://www.regulations.gov/document?D=SAMHSA-2016-0002-0001>

**SELECTED PRESENTATIONS**

**Intramural**

- 10/2011 **Patrick SW**, Choi H, Davis MM. “The Effect of Federal Financing on Medicaid Enrollment for Children.” Peer reviewed, platform presentation. University of Michigan Pediatric Research Symposium. Ann Arbor, Michigan.
- 10/2011 **Patrick SW**, Davis MM, Schumacher RE. “Implications of Neonatal Abstinence Syndrome for Health Care Utilization and Expenditures.” Peer reviewed, poster presentation. University of Michigan Pediatric Research Symposium. Ann Arbor, Michigan.
- 07/2012 **Patrick SW**, Schumacher RE, Benneyworth BD, Krans EE, McAllister JM, Davis MM. “Neonatal Abstinence Syndrome and Associated Healthcare Expenditures – United States, 2000-2009.” Invited speaker, Grand Rounds, University of Michigan Department of Pediatrics and Communicable Diseases. Ann Arbor, Michigan.
- 10/2012 **Patrick SW**. “Policy to Practice: Health Services Research in Neonatology.” Invited speaker, Child Health Evaluation and Research Unit research seminar. University of Michigan. Ann Arbor, Michigan.
- 10/2013 **Patrick SW**. “Opiates and Infants: Understanding Neonatal Abstinence Syndrome.” Invited speaker, Pediatric Research Conference. Department of Pediatrics, Vanderbilt University, Nashville, Tennessee.
- 11/2014 **Patrick SW**. “Neonatal Abstinence Syndrome: Risk of Drug Withdrawal in Opioid-Exposed Infants.” Invited Speaker, 2014 Vanderbilt Translational Research Forum, Vanderbilt University, Nashville, Tennessee
- 2/2015 **Patrick SW**. “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome - A Public Health Approach.” Invited speaker, Grand Rounds, Department of Pediatrics, Vanderbilt University, Nashville, Tennessee.
- 5/2015 **Patrick SW**. “The Prescription Opioid Epidemic and Neonatal

- Abstinence Syndrome - A Public Health Approach.” Invited Speaker. Pediatric Educational Lecture Series, Monroe Carell Jr. Children’s Hospital at Vanderbilt, Nursing Education Department, Nashville, Tennessee.
- 9/2015 **Patrick SW.** “Neonatal Abstinence Syndrome: Informing Public Health Systems.” Invited speaker, Pediatric Research Conference. Department of Pediatrics, Vanderbilt University, Nashville, Tennessee.
- 11/2015 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome - A Public Health Approach.” Invited speaker, 2015 Neonatal Medicine Annual Symposium: Advances and Controversies in Neonatal Medicine, Vanderbilt University. Nashville, Tennessee.
- 5/2016 **Patrick SW.** “Neonatal Abstinence Syndrome.” Invited speaker, joint conference of Obstetrics and Anesthesia at Vanderbilt University School of Medicine, Nashville, Tennessee.
- 3/2017 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome.” Invited speaker. 14th Annual Neonatal Care Update, Vanderbilt University School of Medicine, Franklin, Tennessee.

**Extramural**  
**International**

- 9/2016 **Patrick SW.** “The Opioid Epidemic and Neonatal Abstinence Syndrome.” Invited speaker and panelist. Applying Regulatory Science to Neonates: Second Annual Scientific Workshop. European Medicines Agency, London, England, United Kingdom.

**National**  
**Federal Government**

- 8/2012 **Patrick SW.** “Neonatal Abstinence Syndrome and Associated Healthcare Expenditures – United States, 2000-2009.” Invited speaker, Leadership Meeting on Maternal Addiction, Opioid Exposed Infants and Neonatal Abstinence Syndrome, Office of National Drug Control Policy, The White House. Washington, D.C.
- 08/2013 **Patrick SW.** “Neonatal Abstinence Syndrome: Scope and Evolving Issues.” Invited speaker, Office of National Drug Control Policy, Executive Office of the President, Washington, D.C.
- 09/2013 Spitznas C and **Patrick SW.** “Neonatal Abstinence Syndrome.” Invited speaker, Association of State and Territorial Health Officials and Notational Governors Association Webinar, Washington, D.C.
- 09/2013 **Patrick SW.** “Prescription Drug Use and Neonatal Abstinence Syndrome” Invited speaker, Interagency Working Group on

- Prescription Drug Abuse, Office of National Drug Control Policy, Executive Office of the President, Washington, D.C.
- 04/2014 **Patrick SW.** “Neonatal Abstinence Syndrome.” Invited speaker, panelist. United States Senate Committee on Health, Education, Labor and Pensions Staff Prescription Drug Abuse Working Group. Washington, D.C.
- 12/2015 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome.” Invited speaker, National Institutes of Health, Interagency Coordinating Committee on Fetal Alcohol Spectrum Disorders Executive Committee Meeting. Rockville, Maryland.
- 12/2015 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome - A Public Health Approach.” Invited speaker, Centers for Disease Control and Prevention, Division of Reproductive Health Seminar. Atlanta, Georgia.
- 8/2016 Barfield W, Broussard CS, Yonkers KA, **Patrick SW.** “Primary Prevention and Public Health Strategies to Prevent Neonatal Abstinence Syndrome.” Invited speaker and panelist, Public Health Grand Rounds, Centers for Disease Control and Prevention, Atlanta, Georgia.  
<http://www.cdc.gov/cdcgrandrounds/archives/2016/august2016.htm>
- 8/2016 **Patrick SW.** “Public Health Grand Rounds, Beyond the Data.” Centers for Disease Control and Prevention, Atlanta, Georgia.  
<https://youtu.be/KoqZvpMJU-8>
- 11/2016 **Patrick SW.** “Making Health Care Better Series on Substance Use Disorders.” The White House, Washington, D.C.  
<https://youtu.be/oTY4DwhVwR4>
- 6/2016 **Patrick SW.** “The Triple Aim for Neonatal Abstinence Syndrome.” Institute for Medicaid Innovation. Opioid Epidemic: Crisis to Care in Medicaid. Russell Senate Office Building, Washington, DC.

*Invited Presentations at National Meetings*

- 6/2004 **Patrick SW.** “Covering the Uninsured.” Invited speaker. American Medical Association Annual Meeting. Atlanta, Georgia
- 5/2014 **Patrick SW.** “Improving Care for Infants with Neonatal Abstinence Syndrome.” Invited Speaker and Panelist. Center for Evidence-based Policy, Medicaid Evidence-based Decisions Project (MED), Oregon Health and Science University, MED Governance Conference. Portland, Oregon.
- 10/2014 **Patrick SW** and Schumacher RE. “iNICQ NAS: Innovation in Action.” Moderator, panel discussion, Vermont Oxford Network Annual Quality Congress. Chicago, Illinois.
- 4/2015 **Patrick SW.** “Improving Care to Families Affected by NAS by Understanding Structures of Care, State and Federal Drug Control

- Policies.” Invited Presentation and Panel Discussion. Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. San Diego, California.
- 5/2015 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome - A Public Health Approach.” Invited Speaker and Panelist. Center for Evidence-based Policy, Medicaid Evidence-based Decisions Project (MED), Oregon Health and Science University, MED Governance Conference. Nashville, Tennessee.
- 10/2015 **Patrick SW.** “The Evolving Epidemic.” Invited speaker, Vermont Oxford Network Annual Quality Congress. Chicago, Illinois.
- 10/2015 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome - A Public Health Approach.” Invited speaker, Vermont Oxford Network Annual Quality Congress. Chicago, Illinois.
- 2/2016 **Patrick SW.** “Federal and State Efforts to Address Neonatal Abstinence Syndrome and Opioid Abuse.” Invited speaker and panelist. National Child Health Policy Conference, AcademyHealth. Washington, DC.
- 4/2016 Campopiano M, Jones H, Coffa D, Terplan M, **Patrick SW**, Hayashi S, Perpich J. Clinical Guidance for Treating Opioid-Dependent Pregnant and Parenting Women and Their Babies. Invited speaker and panelist. American Society of Addiction Medicine Annual Conference. Baltimore, Maryland.
- 9/2016 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome.” Invited speaker and panelist. Academy of Neonatal Nursing, 1th Annual National Neonatal Nurses Conference, Nashville, Tennessee.
- 10/2016 **Patrick SW**, Whalen B, Marcellus L, Buus-Frank M. “Just Say Yes to Improvement! A Workshop Focused on Evidence-Based Practices to Improve Outcomes for Infants and Families Affected by Neonatal Abstinence Syndrome.” Invited speaker and panelist. National Association of Neonatal Nurses 32<sup>nd</sup> Annual Educational Conference, Palm Springs, California.
- 4/2017 **Patrick SW**, Campopiano M, Ford S, Schroeder M, Shepherd RA, Wexelblatt S. “Substance Use and the Mother-Baby Dyad: Risk Assessment, Risk Reduction, and Collaborative Care Models to Management.” Invited speaker and panelist. National Rx Drug Abuse and Heroin Summit. Atlanta, Georgia.
- 5/2017 **Patrick SW**, Holmes AV, Seashore C, Wexelblatt S, Grossman M, Wachman E. Achieving the Triple Aim for Neonatal Abstinence Syndrome. Invited speaker and panelist. Pediatric Academic Societies Annual Meeting. San Francisco, California.

*Abstracts, Platform Presentations at National Meetings*

- 5/2010 **Patrick SW**, Freed GL. “Medicaid: A Program for Children? Trends From 1991-2005.” Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. Vancouver, British Columbia.
- 5/2012 **Patrick SW**, Choi H, Davis MM. “The Effect of Federal Financing on Medicaid Enrollment for Children.” Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. Boston, Massachusetts
- 6/2012 **Patrick, SW**, Davis, MM, Meddings JA, Hieber S, Lee GM, Stillwell TL, Chenoweth, CE, Espinosa C, Schumacher RE. “Accuracy of Hospital Administrative Data in Reporting Central-Line Associated Bloodstream Infections in Newborns.” Peer reviewed, platform presentation and panel discussion. AcademyHealth Annual Research Meeting. Orlando, Florida.
- 05/2014 **Patrick SW**, Dudley J, Cooper WO. Higher Dose and Duration of Maternal Prescription Opioid Use Increases Risk of Neonatal Abstinence Syndrome.” Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. Vancouver, British Columbia.
- 4/2015 **Patrick SW**, Davis MM, Lehmann CU, Cooper WO. “Increasing Incidence and Geographic Distribution of Neonatal Abstinence Syndrome: United States 2009-2012.” Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. San Diego, California.
- 4/2015 **Patrick SW**, Warner KE, Pordes E, Davis MM. “Increases in Cigarette Taxes Are Associated With Decreases in Infant Mortality.” Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. San Diego, California.
- 11/2015 **Patrick SW**, Fry CE, Jones TF, Buntin MB. “Prescription Drug Monitoring Programs and Opioid-Related Overdose Deaths.” Peer Reviewed, platform presentation. Robert Wood Johnson Foundation Clinical Scholars Program Annual Meeting, Seattle, Washington.
- 5/2016 **Patrick SW**, Bauer A, Warren MD, Jones TF, Wester C. Prevalence of Hepatitis C Among Pregnant Women. Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. Baltimore, Maryland.
- 5/2016 **Patrick SW**, Scott T, Reese JJ. Patent Ductus Arteriosus Surgical Ligations in the US, 2000 to 2012: Less Frequent, Higher Risk Infants. Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. Baltimore, Maryland.
- 5/2017 Maalouf FI, Cooper WO, Slaughter C, Dudley J, **Patrick SW**. “Outpatient Treatment of Neonatal Abstinence Syndrome Associated with Longer Treatment and Higher Rates of Healthcare Utilization”. Peer Reviewed, Platform Presentation. Pediatric Academic Societies Annual Meeting, San Francisco, California.

- 6/2017 Maalouf FI, Cooper WO, Slaughter C, Dudley J, **Patrick SW**. “Outpatient Treatment of Neonatal Abstinence Syndrome Associated with Longer Treatment and Higher Rates of Healthcare Utilization”. Peer Reviewed, Platform Presentation. Child Health Services Research Interest Group Meeting. AcademyHealth. New Orleans, Louisiana.
- 6/2017 Sanlorenzo LA, Cooper WO, Dudley JA, Stratton S, Maalouf FI, **Patrick SW**. “Identifying Risk of Severe Neonatal Abstinence Syndrome Among Poly-substance Exposed Infants.” Peer Reviewed, Platform Presentation. AcademyHealth. New Orleans, Louisiana.

*Abstracts, Poster Presentations at National Meetings*

- 5/2011 **Patrick SW**, Schumacher RE, Schachinger S, Davis MM. “Regional Variation in Lumbar Punctures for Early Onset Neonatal Sepsis.” Peer reviewed, poster presentation. Pediatric Academic Societies Annual Meeting. Denver, Colorado.
- 10/2011 **Patrick SW**, Davis MM, Schumacher RE. “Implications of Neonatal Abstinence Syndrome for Health Care Utilization and Expenditures.” Peer reviewed, poster presentation. American Academy of Pediatrics National Conference and Exhibition. Boston, Massachusetts.
- 11/2011 **Patrick SW**, Davis MM, Schumacher RE. “ Implications of Neonatal Abstinence Syndrome for Health Care Utilization and Expenditures.” Peer reviewed, poster presentation. Robert Wood Johnson Foundation Clinical Scholars Program National Meeting. Washington, D.C.
- 11/2011 **Patrick SW**, Choi H, Davis MM. “The Effect of Federal Financing on Medicaid Enrollment for Children.” Peer reviewed, poster presentation. Robert Wood Johnson Foundation Clinical Scholars Program National Meeting. Washington, D.C.
- 04/2012 **Patrick, SW**, Davis, MM, Meddings JA, Hieber S, Lee GM, Stillwell TL, Chenoweth, CE, Espinosa C, Schumacher RE. “Lack of Accuracy of Hospital Administrative Data in Reporting Central-Line Associated Bloodstream Infections in Newborns.” Peer reviewed, poster presentation. Pediatric Academic Societies Annual Meeting. Boston, Massachusetts.
- 04/2012 **Patrick SW**, Schumacher RE, Benneyworth BD, Krans EE, McAllister JM, Davis MM. “Neonatal Abstinence Syndrome and Associated Healthcare Expenditures – United States, 2000-2009.” Peer reviewed, poster presentation. Pediatric Academic Societies Annual Meeting. Boston, Massachusetts.
- 05/2013 **Patrick SW**, Benneyworth BD, Schumacher RE, Davis MM. “Variation in Hospital Type in Treatment of Neonatal Abstinence Syndrome in the United States.” Peer reviewed, poster

- presentation. Pediatric Academic Societies Annual Meeting. Washington, D.C.
- 05/2013 **Patrick SW**, Kaplan H, Passarella M, Davis MM, Lorch SA. "Variation in Treatment of Neonatal Abstinence Syndrome in US Children's Hospitals." Peer reviewed, poster presentation. Pediatric Academic Societies Annual Meeting. Washington, D.C.
- 05/2013 **Patrick SW**, Tse A, Jin R, Gay C, Kassler W, Lee GM. "Trends in Pediatric Hospital Acquired Infections, 2007-2011." Peer reviewed, poster presentation. Pediatric Academic Societies Annual Meeting. Washington, D.C.
- 10/2013 **Patrick SW**, Kaplan H, Passarella M, Davis MM, Lorch SA. "Variation in Treatment of Neonatal Abstinence Syndrome in US Children's Hospitals." Peer reviewed, poster presentation. Vermont Oxford Network Annual Meeting. Chicago, Illinois.
- 05/2014 **Patrick SW**, Burke J, Cooper WO. "Risk of Hospital Readmission Among New York Infants With Neonatal Abstinence Syndrome." Peer reviewed, poster presentation. Pediatric Academic Societies Annual Meeting. Vancouver, British Columbia.
- 05/2014 Buus-Frank ME, Ferrelli K, Morrow K, Edwards E, **Patrick SW**, Schumacher RE, Horbar JD, Soll RF. "VON Day Quality Audit / Neonatal Abstinence Syndrome." Peer reviewed, poster presentation. Pediatric Academic Societies Annual Meeting. Vancouver, British Columbia.
- 4/2015 **Patrick SW**, Dudley J, Martin PR, Harrell FE, Warren MD, Hartmann KE, Ely EW, Grijalva GC, Cooper WO. Higher Dose and Duration of Maternal Prescription Opioid Use Increases Risk of Neonatal Abstinence Syndrome." Peer reviewed, poster presentation. Translational Science 2015. Washington, D.C
- 4/2015 **Patrick SW**, Schumacher RE, Horbar J, Buus-Frank M, Edwards E, Morrow K, Ferrelli K, Soll R. "Improving Care for Infants with Neonatal Abstinence Syndrome: Results of an Large Multicenter Collaborative" Peer Reviewed, Poster Symposium. Pediatric Academic Societies Annual Meeting. San Diego, California
- 6/2015 **Patrick SW**, Fry CE, Jones TF, Buntin MB. "Prescription Drug Monitoring Programs and Opioid-Related Overdose Deaths." Peer Reviewed, poster presentation. AcademyHealth Annual Research Meeting. Minneapolis, Minnesota.
- 5/2016 Charles MK, Cooper WO, Jansson LJ, Dudley J, Slaughter J, **Patrick SW**. Infant Sex and Risk of Neonatal Abstinence Syndrome. Peer reviewed, poster presentation. Pediatric Academic Societies Annual Meeting. Baltimore, Maryland.
- 5/2017 Hatch LD, Scott TA, Walsh WF, Blakely ML, **Patrick SW**. "National and Regional Trends in Gastrostomy and Fundoplication in Very Low Birth Weight Infants in the US: 2000-2012." Peer Reviewed, Poster Symposium. Pediatric Academic Societies, San Francisco, California.

- 5/2017 Sanlorenzo LA, Cooper WO, Dudley JA, Stratton S, Maalouf FI, **Patrick SW**. “Identifying Risk of Severe Neonatal Abstinence Syndrome Among Poly-substance Exposed Infants.” Peer Reviewed, Poster Symposium. Pediatric Academic Societies, San Francisco, California.
- 5/2017 Maalouf FI, Cooper WO, Stratton S, Dudley J, Ko J, Mukherjee A, **Patrick SW**. “Validation and Development of Algorithms to Identify Neonatal Abstinence Syndrome in Public Health Systems.” Peer Reviewed, Poster Symposium. Pediatric Academic Societies, San Francisco, California.

*Academic Institutions*

- 10/2012 **Patrick SW**. “Policy to Practice: Health Services Research in Neonatology.” Invited speaker, research seminar. Cincinnati Children’s Hospital Medical Center. Cincinnati, Ohio.
- 11/2012 **Patrick SW**. “Policy to Practice: Health Services Research in Neonatology.” Invited speaker, research seminar. Vanderbilt University (prior to faculty appointment). Nashville, Tennessee.
- 12/2012 **Patrick SW**. “Policy to Practice: Health Services Research in Neonatology.” Invited speaker, research seminar. University of Florida. Gainesville, Florida.
- 04/2013 **Patrick SW**. “Neonatal Abstinence Syndrome: Scope and Evolving Issues.” Invited speaker, Grand Rounds. Beaumont Children’s Hospital. Royal Oak, Michigan.
- 03/2014 **Patrick SW**. “NAS: Epidemiology, Economics and Management.” Invited Speaker, NeoFest 2014. Cincinnati Children’s Hospital Medical Center, Cincinnati, Ohio.
- 12/2015 **Patrick SW**. “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome - A Public Health Approach.” Invited speaker. Dartmouth University Geisel School of Medicine, Department of Pediatrics, Grand Rounds. Hanover, New Hampshire.
- 12/2015 **Patrick SW**. “How to Have an Academic Career with Impact.” Invited speaker. Dartmouth University Geisel School of Medicine, Department of Pediatrics, Resident Noon Conference. Hanover, New Hampshire.
- 3/2016 **Patrick SW**. “Neonatal Abstinence Syndrome - A Public Health Approach.” Neonatal Grand Rounds Speaker, Tufts University. Boston, Massachusetts.
- 5/2016 **Patrick SW**. “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome.” Marie McCormick Lectureship in Neonatal Health Services Research and Epidemiology, Harvard Medical School, Beth Israel Deaconess Medical Center, Department of Neonatology. Boston, Massachusetts.
- 5/2016 **Patrick SW**. “Improving Care for Neonatal Abstinence Syndrome.” Newborn Medicine Research Seminar Series, Boston

Children's Hospital, Division of Neonatology. Boston, Massachusetts.

- 5/2016 **Patrick SW.** "The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome." Invited speaker, PedsPLACE. University of Arkansas for Medical Sciences. Little Rock, Arkansas.
- 10/2016 **Patrick SW.** "The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome." Invited speaker. Neonatal Abstinence Syndrome Workgroup, East Tennessee State University, Department of Pediatrics, Johnson City, Tennessee.
- 2/2017 **Patrick SW.** "The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome." Invited speaker. University of Michigan, Department of Pediatrics, Grand Rounds. Ann Arbor, Michigan.
- 4/2017 **Patrick SW.** "The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome." Invited speaker, The Wandra L. Jones-Phillips Memorial Lecture, Neonatology 2017, Emory University Department of Pediatrics, Atlanta, Georgia.
- 4/2017 **Patrick SW.** "Long-Term Outcomes for Neonatal Abstinence Syndrome: What We Know and What We Don't." Invited speaker, Neonatology 2017, Emory University Department of Pediatrics, Atlanta, Georgia.
- 5/2017 **Patrick SW.** "The Opioid Epidemic and Neonatal Abstinence Syndrome." Invited speaker, Children's National Medical Center Grand Rounds, Washington, D.C.

*State Quality Improvement Meetings*

- 02/2013 **Patrick SW.** "Neonatal Abstinence Syndrome: Scope and Evolving Issues." Invited speaker, Tennessee Initiative for Perinatal Quality Care Annual Meeting. Franklin, Tennessee.
- 01/2014 **Patrick SW.** "Neonatal Abstinence Syndrome: Scope and Evolving Issues." Invited speaker and panelist, Perinatal Quality Collaborative of North Carolina Annual Meeting, Durham, North Carolina.
- 12/2015 **Patrick SW.** "Improving the Care of NAS from the Bedside to Capitol Hill." Invited speaker, Caring for Newborns Born to Women with Perinatal Opioid Exposure, Neonatal Abstinence Syndrome Project of the Neonatal Quality Improvement Collaborative of Massachusetts (NeoQIC) and the Northern New England Perinatal Quality Improvement Network (NNEPQIN) Fall Meeting. Westborough, Massachusetts.
- 12/2015 **Patrick SW,** Tilley P, Record K. "Advocating for Policy Change Locally, Regionally, and Statewide: What Each of Us Can Do." Panelist. Caring for Newborns Born to Women with Perinatal Opioid Exposure, Neonatal Abstinence Syndrome Project of the Neonatal Quality Improvement Collaborative of Massachusetts (NeoQIC) and the Northern New England Perinatal Quality

- Improvement Network (NNEPQIN) Fall Meeting. Westborough, Massachusetts.
- 1/2016 **Patrick SW.** “Improving the Care of NAS from the Bedside to the Capitol.” Invited speaker, Perinatal Quality Collaborative of North Carolina. Raleigh, North Carolina.
- 3/2016 **Patrick SW.** “Improving the Care of NAS from the Bedside to the Capitol.” Invited speaker, Tennessee Initiative to Improve Perinatal Quality Care. Franklin, Tennessee.
- 3/2017 **Patrick SW.** “Targets to Reduce Morbidity.” Invited speaker and panelist, Tennessee Initiative to Improve Perinatal Quality Care. Franklin, Tennessee.

*Webinars*

- 01/2013 **Patrick SW.** “Opiates and Infants: Neonatal Abstinence Syndrome, Epidemiology and Scope.” Invited speaker and panelist, Vermont Oxford Network Webinar. Burlington, Vermont.
- 05/2013 **Patrick SW.** “Neonatal Abstinence Syndrome: Presentation and Typical Course.” Invited speaker and panelist, Vermont Oxford Network Webinar. Burlington, Vermont.
- 05/2014 **Patrick SW.** “Neonatal Abstinence Syndrome.” Invited presentation, webinar. Association for Community Affiliated Plans. Washington, D.C.
- 2/2015 **Patrick SW.** “Neonatal Abstinence Syndrome: Continued Increase and Geographic Variation.” Invited speaker and panelist, Vermont Oxford Network Webinar. Burlington, Vermont.
- 6/2015 **Patrick SW.** “The National Landscape – Trends Toward Legalization of Marijuana.” Invited speaker and panelist, Vermont Oxford Network Webinar. Burlington, Vermont.
- 9/2016 **Patrick SW,** Write T, Mittal LP, Hersey ML. “The Emerging Crisis of Opioid Addiction – Implications for Home Visiting.” Invited speaker and panelist, U.S. Department of Health and Human Services, Health Resources and Services Administration, HV-Impact. Rockville, Maryland.
- 8/2017 **Patrick SW.** “Understanding Neonatal Abstinence Syndrome for the General Pediatrician.” Invited speaker, The American Academy of Pediatrics. Elk Grove Village, Illinois.

*State Government and Local Communities*

- 8/2012 **Patrick, SW.** “Neonatal Abstinence Syndrome.” Invited speaker, Iosco County Department of Human Services. Conference entitled, “Substance Abuse and Families.” Hale, Michigan.
- 11/2012 **Patrick SW.** “Opiates and Infants: Neonatal Abstinence Syndrome.” Invited speaker, 12th Annual Multidisciplinary Child Abuse Conference Prosecuting Attorney’s Association of Michigan. Bay City, Michigan.

- 04/2013 **Patrick SW.** “Neonatal Abstinence Syndrome: Scope and Evolving Issues.” Invited speaker, 21<sup>st</sup> Annual Conference of the Southeastern Michigan Association of Neonatal Nurses. Frankenmuth, Michigan.
- 09/2013 **Patrick SW.** “Neonatal Abstinence Syndrome: Scope and Evolving Issues.” Invited speaker, Tennessee Public Health Association Annual Meeting, Franklin, Tennessee.
- 03/2014 **Patrick SW.** “Neonatal Abstinence Syndrome.” Invited Speaker, 2014 Early Intervention Conference, Building Best Practice: Partnering Coaching, Leading. Tennessee Early Intervention Services. Murfreesboro, Tennessee.
- 11/2014 **Patrick SW.** “Neonatal Abstinence Syndrome: Current Issues in Tennessee and Beyond.” Invited speaker, Learning for Babies - A Conference to Benefit the March of Dimes. Franklin, Tennessee.
- 9/2015 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome - A Public Health Approach.” Invited Speaker, Tennessee Annual Pediatric Conference, Tennessee Chapter of the American Academy of Pediatrics. Franklin, Tennessee.
- 12/2015 **Patrick SW.** “Neonatal Abstinence Syndrome - A Public Health Approach.” Invited speaker. New Hampshire Governor’s Task Force on Perinatal Substance Exposure. Concord, New Hampshire.
- 1/2016 **Patrick SW.** “Neonatal Abstinence Syndrome - A Public Health Approach.” Invited speaker. Neonatal Abstinence Syndrome Community Collaborative. Nashville, Tennessee.
- 7/2016 **Patrick SW.** “Neonatal Abstinence Syndrome - A Public Health Approach.” Invited speaker. Tennessee Hospital Association Annual Meeting. Miramar Beach, Florida
- 2/2017 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome.” Keynote speaker. Orange County Drug Abuse Summit, Winnie Palmer Hospital for Women & Babies. Orlando, Florida.