Curriculum Vitae

Name:	Sarah A. Starr
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Education

09/1985 - 05/1989	B.A. in English Literature from Duke University, Durham, NC United States
09/1987 - 06/1988	Overseas studies program in English, Classics, and Portuguese sponsored through Duke University from University College of Cardiff, Cardiff, Wales, United Kingdom
09/1991 - 05/1993	Post-Baccalaureate Studies in core sciences in preparation for medical school. Full course of study included Chemistry, Physics, Anatomy, Physiology, and Anatomy. Pre-Medical Society Vice President 1992-1993. from Michigan State University and Lansing Community College, Lansing, MI
07/1994 - 05/1998	M.D. in Awarded entry into Alpha Omega Alpha honor society in December 1997. Community Based medical school. First two years of didactics at East Lansing campus. Completed clinical rotations at Grand Rapids campus with rotations at Blodgett Hospital, St. Mary' from Michigan State University College of Human Medicine, East Lansing, MI United States
01/1998 - 02/1998	Family Medicine from Andrews Memorial Hospital under supervision Michigan State University CHM, Kingston, Jamaica

Training

07/1998 - 06/1999	Certificate in Internship in Internal Medicine. Clinical rotations at VA hospital of East Orange, Unversity Medical Center at Newark and Hackensack Memorial Hospital. from University of Medicine and Dentistry of New Jersey, Newark, NJ, New Jersey, Newark, NJ
07/1999 - 06/2001	Residency in Residency training in clinical anesthesia. Resident admissions committee member, clinical experience from Department of Anesthesia, Massachusetts General Hospital,, Boston, MA
07/2002 - 06/2003	M.D. in Completion of clinical anesthesia residency from Department of Anesthesia, Vanderbilt University Medical Center, Nashville, TN
10/2008 - 07/2009	Certificate in Obstetric Anesthesia - Awarded Fellowship Completion Certificate from Vanderbilt University Medical Center, Nashville, TN

Licensure and Certification

05/1998 - Present	Medical License, Tennessee Board of Medical Examiners of Tennessee United States (37170)
03/2003 - 01/2006	Medical License, Kentucky Board of Medical Examiners: Expired in good standing of Kentucky United States (38808)
04/2004 - Present	Board Certification, American Board of Anesthesiologists: Board Certification United States (3583-8970)
03/2009 - 02/2012	DEA [Drug Enforcement Administration] License, DEA [Drug Enforcement Administration] License of Tennessee United States (BS 8467828)
08/2012 - Present	Ongoing Education, ACLS certification of Tennessee (on file with Vanderbilt)

Academic Appointments

10/2008 - 07/2009	Instructor in Clinical Anesthesiology, Vanderbilt University (Nashville, Tennessee)
08/2009 - 12/2013	Assistant Professor of Clinical Anesthesiology, Vanderbilt University (Nashville, Tennessee)

Hospital Appointments

06/2003 - 09/2005	Interventional Pain Physician, Private Practice Pain Management, Pain Management Center of Paducah (Paducah, Kentucky)

Professional Organizations

2003	American Society of Anesthesiologists
2003 - 2006	American Society of Interventional Pain Physicians, Member
2008	Society of Obstetric Anesthesia and Perinatology
2009	Vanderbilt University Medical School Gay Straight Alliance, Faculty Advisor
2011	American College of Nurse Midwives, member

Professional Activities

Intramural

10/2009 - Present	Admissions Committee, Medical Education :ADMINISTRATION, Interview and evaluate prospective residents, review application materials and provide evaluations., Interviewer and committee member, Interview/Access Prospective Medical Students
11/2009 - Present	Practice Assessment and Improvement Task Force, Anesthesiology, Resident-led task force with the purpose of identifying and targeting key clinical issues that can improve patient care, Faculty Advisor, Improve Patient Care
03/2010 - 08/2011	Nitrous Oxide for Labor Task Force, Anesthesiology, Co-Administrator
09/2010 - Present	Supplies and Equipment Committee, Anesthesiology
09/2011 - Present	Family Centered Cesarean Birth Committee, Obstetrics :GYNECOLOGY, Chair of multidisciplinary effort to promote practices and policies integrating elements of non-interventive natural birth into the cesarean birth experience., Chair
03/2012 - Present	Baby-Friendly Committee, Pediatrics, Consulting member. Providing medical advisory role regarding the potential implementaiton of Baby Friendly inititative for cesarean patients., Member, Consultant
07/2012 - Present	Women's Operational Committeee, Obstetrics :GYNECOLOGY, Faculty liason/consultant to committee for Family-Centered cesarean project . I presented formally to the committee, and coordinated in the creation of a new nursing position facilitate skin to skin in the operating room with cesarean births., Consultant

Extramural

09/1994 - 05/1996	Admissions Committee, Michigan State University College of Human Medicine, Member, Interviewer and Evaluator
09/2009 - Present	VMS-GSA, Medical Education :ADMINISTRATION, Co-Faculty Advisor with Dean Scott Rodgers, advised students ongoing projects including lecture events and health fair, involved in working meetings and events., Faculty Advisor

Teaching Activities

08/2009 - 04/2009	Core Curriculum: Airway Disasters and Pulmonary Aspiration, Instructor, 8/17/09, 10/12/09, 12/7/09
08/2009 - 08/2009	Core Curriculum: Differential and Management of Peri-Partum Headache, Instructor, Division of OB Anesthesia, 8/5/09
08/2009 - 04/2010	Core Curriculum: Anesthetic Mortality-Emphasis on Airway and Pulmonary Aspiration, Instructor, Division of Obstetric Anesthesia, 8/17/09, 10/12/09, 4/21/10
08/2009 - 04/2010	Core Curriculum: Post-Partum Hemorrhage: Causes and Treatment, Instructor, Division of Obstetric Anesthesia, 8/11/09, 1/26/09, 4/21/10
09/2009 - 09/2009	Core Curriculum: Post-Cesarean Analgesia, Instructor, Division of Obstetric Anesthesia, 9/16/09
10/2009 - 02/2009	Didactics: Intra-Uterine Fetal Surgery, Instructor, Division of Obstetric Anesthesia, 10/30/09
10/2009 - 02/2010	Core Curriculum: Pre-Eclampsia and Eclampsia, Instructor, Division of Obstetric Anesthesia, 10/5/09, 2/22/10
11/2009 - 02/2010	Core Curriculum: Physiology of Utero-Placental Function, Instructor, Division of OB Anesthesia, 11/24/09, 1/19/10

11/2009 - 05/2010	Core Curriculum: Tocolytic Therapy for Preterm Labor with Focus on Betamethasone and Magnesium, Instructor, Division of Obstetric Anesthesia, 11/13/09, 5/14/10
12/2009 - 12/2009	Core Curriculum: Emergency Cesarean Delivery, Instructor, Division of Obstetric Anesthesia, 12/12/09
02/2010 - 04/2010	Core Curriculum: Anesthesia for Non-OB Surgery, Instructor, Division of Obstetric Anesthesia, 2/19/10, 4/28/10
03/2010 - 03/2010	Core Curriculum: Safe and Effective Conduct of Anesthesia for Cesarean Delivery, Instructor, Division of Obstetric Anesthesia, 3/11/10
03/2010 - 04/2011	Core Curriculum: Neurologic Complications in Obstetric Anesthesia, Instructor, Division of Obstetric Anesthesia, 3/30/10, 9/21/10, 3/8/2011
04/2010 - 04/2010	Core Curriculum: Obstetric Anesthesia Morbidity and Mortality, Instructor, Division of Obstetric Anesthesia, 4/1/10
04/2010 - 04/2010	VMS GSA Health Week Curriculum: Medical Professionals in the LGBT Community: A Provider's Perspective, VUMC, The VMS GSA sponsors a yearly health fair each April with a week of lectures, seminars Q/A sessions and panel discussions on various topics relevant to the LGBT patient population
04/2010 - 05/2010	Core Curriculum: Multiple Gestation and Abnormal Presentation, Instructor, Division of Obstetric Anesthesia, 4/20/10, 5/18/10
05/2010 - 05/2010	Didactics: Physiologic Changes of Pregnancy: Anesthetic Perspective, Instructor, Division of Obstetric Anesthesia, 5/4/10
06/2010 - 08/2010	Obstetric Core Curriculum: Maternal Physiologic Changes and Anesthetic Implications, Instructor, Division of Obstetric Anesthesia, 6/29/10, 8/31/10
06/2010 - 03/2011	Core Curriculum: Hypertensive Disease and Pre-Eclampsia, Instructor, Division of Obstetric Anesthesia, 6/10/10, 3/14/11
07/2010 - 10/2010	Core Curriculum: Maternal Morbidity and Mortality, Instructor, Division of Obstetric Anesthesia, 7/29/10, 10/21/10
07/2010 - 05/2011	Core Curriculum: Neuraxial Analgesia: Effects on Progress of Labor and Effects on the Fetus/Neonate, Instructor, Division of Obstetric Anesthesia, 7/22/10, 2/3/11,5/19/11
08/2010 - 09/2010	Core Curriculum: Utero-Placental Function and Anesthetic Induced Hypotension, Instructor, Division of Obstetric Anesthesia, 8/9/10, 9/6/10
08/2010 - 01/2011	Core Curriculum: Neuraxial Anesthesia: Anatomy, Physiology and Technique, Instructor, Obstetric Anesthesia Division, 8/4/10, 1/19/11
11/2010 - 09/2010	Core Curriculum: Embolic Disorders in Pregnancy, Instructor, Division of Obstetric Anesthesia, 11/19/10
11/2010 - 11/2010	Core Curriculum: Co-Existing Disease: Obesity and Diabetes, Instructor, Division of Obstetric Anesthesia, 11/8/10
12/2010 - 12/2010	Core Curriculum: Pre-Term Labor and Tocolytic Therapy, Instructor, Division of Obstetric Anesthesia, 12/3/10
12/2010 - 12/2010	OB resident learning: Spinal Headache, Instructor, OB anesthesia Division, 12/13/10
01/2011 - 03/2011	OB resident education: Breech presentation, Instructor, OB anesthesia division, 1/4/11, 3/1/11
02/2011 - 02/2011	Core Curriculum: Obstetric Hemorrhage with focus on Uterotonics, Instructor, Division of Obstetric Anesthesia, 2/2/11
03/2011 - 03/2011	Obstetric Anesthesia Resident Series: Anatomy, physiology and technique of regional anesthesia, Instructor, OB Anesthesia Division, 03/16/11
04/2011 - 04/2011	Analgesia for the Post-Cesarean parturient, instructor, OB anesthesia division
04/2011 - 04/2011	OB anesthesia division: airway and pulmonary aspiration, instructor, OB anesthesia division, 3/12/11
04/2011 - 05/2011	Side Effects and Complications of regional anesthesia, instructor, OB anesthesia division, 3/8/11, 5/6/11, 6/3/11
05/2011 - 08/0	Examiner
05/2011 - 05/2011	Obesity and Diabetes, instructor, OB anesthesia division, 5/16/11
06/2011 - Present	Nitrous Oxide Resident and SRNA Inservice, Facilitator, OB Anesthesia Division, Monthly Lecture and hands-on machine operation demonstration to rotating residents and SRNAs. Presentation discusses clinical use of nitrous oxide for labor, patient teaching and safe machine operation.
07/2011 - Present	Nitrous Oxide for Labor Resident and SRNA Inservice, educator, Vanderbilt, Comprehensive about clinical administration of nitrous oxide for labor lecture to residents and student nurse anesthestists at start of clerkship.

04/2013 - Present	Nursing Aspects of Family Centered Cesarean Birth, Instructor, VUMC MCE 4152, Teaching session on clinical aspects of Family-Centered Cesarean Birth Care relevant to lactation consultants involved in pre-natal parent education classes at VUMC.
05/2013 - Present	Continuity Clinical Experience: CELA Continuity Clinical Experience, Evaluator and Feedback, CELA lab, First year medical students interview mock patient for medication history, reconciliation and health coaching. I observed patient interviews, completed performance evaluations and led directed feedback sessions following the interview.

Research Supervision / Mentorship

08/2009 - Present	Curtis Baysinger, M.D. meetings on 8/14/09, 11/4/09, 1/26/10, 3/21/10, 8/11/10, 10/22/10, 1/09/11, 5/02/11, Current Position: Division Director, Obstetric Anesthesia. (Faculty, General Mentorship)
10/2009 - 05/2012	Joe Schlessenger, M.D. Vanderbilt University Medical Center Department of Anesthesia meetings 10/29/09, 11/3/09, 2/20/10, 11/20/10, Current Position: Resident Physician. (Resident, Education)
08/2010 - 06/2013	Jeremy Bennett, M.D. (Resident, General Mentorship)
08/2011 - 05/2012	Heidi Smith, M.D. Vanderbilt University Medical Center, Current Position: Resident in Anesthesia. (Resident, Clinical)
07/2012 - 06/2013	Matthew Buck, M.D. Vanderbilt University Medical Center, Current Position: Clinical Fellow in Obstetric Anesthesia. (Post-doc Fellow, Clinical)
08/2012 - Present	Bradley Rodgers, M.D. VUMC, Current Position: Resident in Anesthesia. (Resident, Research)
10/2012 - Present	Alex Greene, M.D. VUMC, Current Position: Mentor for collaboration on research project on respiratory physiology of nitrous oxide. (Resident, Research)

Other Significant Activities

01/2011	Advisor to VUMC Burn Unit Medical Director: Advisor to Burn Unit for the development and implementation of a Nitrous Oxide analgesia program for burn unit patients. McGrane, Stuart, Carr, Devin S, Valentini Carolyn, Guy, Jeffrey.
05/2011	Implementation of New Clinical Program: Coordinated the implementation of new clinical program of adminstration of nitrous oxide for women in labor. Policy formulation, work with multi-disciplinary team, new equipment, staff inservice training
09/2011	Advisor University of Colorado Denver Anesthesia: Advisor to Joy Hawkins MD Professor and Brenda Bucklin MD, Professor anesthesia; provided consultation regarding technical, clinical and aministrative aspects of potential implementation of nitrous oxide for labor program.
09/2011	Advisor: Advisor to El Camino Hospital in Mountain View, California for implementation of nitrous oxide for labor program. El Camino is a community hospital with 4500 deliveries per year. Stacy Maguire, Nurse Educator.
02/2012	Advisor to UNC Chapel Hill Anesthesia Department: Advised on technical and administrative aspects of implementation of nitrous oxide program, corresponded with interested leadership in pharmacy and nursing administration. Martha Carlough, Associate Professor, and David Mayer,Division Director.
05/2012	Advisor: Advisor to Massachusetts General Hospital obstetric anesthesia division for program development and clinical implementation of potential nitrous oxide for labor service at MGH. Emily Guimaraes, MD director of OB anesthesia education
07/2012	Clinical Advsiro: Advisor to Santa Clara Valley Medical Center for implementation of new nitrous oxide service, discussions via email with Vicki Ting, MD, Director of OB Anesthesia in July-Sept 2012. Time spent in background information research and corrrespondance.
10/2012	Advisor for potential implementation of nitrous oxide service: Advisor to Karen Hand, MD, Director of Obstetric Anesthesia at Oregon Health and Science University, Portand Oregon. Providing ongoing consultation and expert advise regarding potential implementation of nitrous oxide service at their facility.
01/2013	Research and writing on text book: Research on textbook on Inhaled Nitrous Oxide for Labor: Clinical Manual and writing of text. Extensive research and literature search on inhaled nitrous oxide for labor, this text is currently 160 pages long, still in rough draft format at this time.

04/2013	Clinical Research Judge for 31st Annual VUMC Research Forum: Faculty clinical research judge for VUMC annual research forum. Reviewed and graded abstracts prior to the forum, attended and judged oral presentations and posters on day of forum.
05/2013	CELA medical student interview evaluator: Evaluated, completed assessment and provided feedback to medical students performing simulated patient interviews in CELA simulation lab.
05/2013	Clinical Advisor for Implementation of Nitrous Oxide Service: Consultation and advisor to Dartmouth Hitchcock for implementation of nitrous oxide program: Ben Morley, MD, Director of Obstetric Anesthesia, Dartmouth, NH. Email correspondence.

Grants and Funding

Grant number unavailable Sarah Starr, MD (PI) 09/2010 - Present

Trans-Abdominus Block: A Randomized Double Blind Trial

grant for implementation of RCT in patients receiving transabdominus block, for purpose of equipment.

Role: Principal Investigator

Total Cost: $2,000.00

Grant number unavailable Team member and topic expert for 15 month funded research project led by Vanderbilt Evidence-Based Practice Center. Project currently in topic refinement phase, and will include participation in extensive literature search/review, authorship of one key t (PI) 09/2010 - 08/2012

Vanderbilt Evidence-based Practice Center

Nitrous Oxide for Labor: Review of Literature

Nitrous Oxide for Labor (Co-Investigator) HHSA 2007-1005-I AHRQ Evidence Based Practice Centers III The EPCs develop evidence reports and technology assessments on topics relevant to the clinical, socia science/behavioral, economic and health care organization and delivery arenas. Total Funding 8,727,676.00

Role: Co-Investigator

Total Cost: $58,750.00

Honors / Awards

12/1997	Alpha Omega Alpha, Michigan State University, Honor Medical Society
10/2011	Highly Recommended Lecturer Status, Women's Health Nurse Residency Program, Awarded highly recommended lecturer status by Women's Health Nurse Residency Program based upon participant feedback from 2011 Summer Program cohorts

Publications

Peer Reviewed Publications

Review Articles

1. Likis FE, Andrews JC, Collins MR, Lewis RM, Seerogy, JJ, **Starr SA**, Walden RR, McPheeters ML. Nitrous Oxide for the Management of Labor Pain: Comparative Effectiveness Review 67. AHRQ Comparative Effectiveness Reviews. Agency for Healthcare Research and Quality 2012 Aug;2012 Aug(Report No.: 12-EHC071-EF.) PMID: 23016161.
2. Michelle R. Collins, PhD, CNM,1 Sarah A. Starr, MD,2 Judith T. Bishop, MSN, CNM,3. Nitrous Oxide for Labor Analgesia: Expanding Analgesic Options for Women in the United States. Rev Obstet Gynecol 2013 Jan;5(3-4):e126-e131. PMID: 23483795 PMCID: PMC3594866.
3. **Starr SA**, Baysinger CL. Inhaled Nitrous Oxide for Labor Analagesia. Anesthesiology Clinics 2013 Sep.

Non-Peer Reviewed Publications

Videos

1. Channel 5 news. Vanderbilt now offering Nitrous oxide for labor-Channel 5 news. 2011 May.
2. Holt, Erin. Vanderbilt now offers laughing gas to women in labor. 2011 May.
3. Ivanhoe Newswire. Laughing Through Labor? . 2011 Dec.
4. Vanderbilt Health. Gas is no laugh at Vanderbilt. 2012 Jan.

Others

1. VUMC News/Publications online. VUMC Offers Women â€œLaughing Gasâ€ as Pain Management Option During Childbirth. 2011 May.
2. Associated Press. Vanderbilt Offers laughing gas to ease labor pain-AP/Tennessean News Story. 2011 Jun.
3. Sarah Starr MD. Obstetric Anesthesia: Pain Relief for Labor and Birth. 2012 Jun.

Review Articles

1. Kathy Rivers. Laughing Gas added as childbirth pain control option-The Vanderbilt Reporter. The Vanderbilt Reporter 2011 Jun;XXI(22):5-5.
2. **Starr SA**, Baysinger CL. Inhaled Nitrous Oxide in Oxygen for Labor: Utilizing a blender device to provide patient-controlled analgesia. Sensor Online: Official Publication of the American Society of Anesthesia Technologists and Technicians 2013 Jan;24(Jan 2013):6-9.

Abstracts

1. Jeremy Bennett, Sarah Starr, Eswara Botta. Cardiovascular Instability Due to Systolic Anterior Motion of the Mitral Valve . 2011 Oct.

Evidence-Based Guidelines

1. **Starr, S**arah A, Collins, Michelle. Nitrous Oxide in the IntraPartum/Immediate Post-Partum Period. 2011 Mar.
2. **Starr SA**, Spetalnick B, Baysinger C, Seaton, R. Perioperative Patient Care for Cesarean Birth. 2013 Jul;1-15.

Presentations

Medically Challenging Cases

1. Jeremy Bennett, Sarah Starr, Eswara Botta. American Society of Anesthesiologists Annual Meeting. ASA; San Diego, California. 2010 Oct 16; Cardiovascular Instability due to Systolic Anterior Motion of the Mitral Valve in Patient undergoing Laparoscopic Gastric Banding Under General Anesthesia.
2. Sarah Starr MD. MSA Case Conference. Vanderbilt Dept of Anesthesia; Nashville, Tennessee. 2012 Nov 14; Cardiac Arrest Following Induction of General Anesthesia.

Invited Presentation - Local

1. Sarah Starr. Summer 2011 Womenâ€™s Health Nurse Residency Program. Vanderbilt School of Nursing; Nashville, Tennessee. 2011 Aug 23; Nitrous Oxide for labor A Nursing Perspective.
2. 2012 Winter Women's Health Cohort Presentations. Vanderbilt University School of Nursing; Nashville, Tennessee. 2012 Feb 6; Nurse Residency Lecture Nitrous Oxide for Labor.
3. Starr SA. Summer 2012 Women's Health Nurse Residency Program. VUMC; Nashville, Tennessee. 2012 Jul 17; Nitrous Oxide Analgesia for Labor and Delivery.
4. Starr SA. Womens and Childrens Operational Committee Meeting. VUMC; Nashville, Tennessee. 2012 Jul 19; The Family-Centered Cesarean: Considerations for Perinatal Nurse Staffing.
5. Starr SA. OB-PCC. VUMC; Nashville, Tennessee. 2013 Jun 25; Family-Centered Cesarean Birth Policy Proposal and Discussion.

Invited Presentation - Regional

1. Sarah Starr. Anesthesia Tech Regional Meeting. Vanderbilt University; Nashville, Tennessee. 2011 Jun 4; Inhaled Nitrous Oxide: A Simpler Approach to Obstetric Pain Management.

Invited Presentation - National

1. Sarah Starr MD and Michelle Collins, NP. 36th Annual High Risk OB Conference. Vanderbilt; Franklin, Tennessee. 2010 Dec 4; Nitrous Oxide for Labor: Past, Present and Future.

2. Sarah Starr, Judith Bishop, Michelle Collins. American College of Nurse Midwives Annual Meeting. ACMN; San Antonio, Texas. 2011 May 26; Everything old is new again: Is there a place for nitrous oxide as a labor analgesic?.
3. Starr SA, Alleman E. Your Health Matters hosted by Dr. Elizabeth Alleman. KOPN St Louis Missouri; St Louis, Missouri. 2013 Jun 26; Family Centered Cesarean.

Podcasts / Webinar

1. Sarah Starr and Michelle Collins. Inservice for Labor and Delivery Staff internet interactive Learning Module. Vanderbilt School of Nursing; Nashville, Tennessee. 2011 May 1; Nitrous Oxide for Labor Staff Inservice.

Panel Presentation

1. Medical Subspecialties: Anesthesia. Vanderbilt University Medical College; Nashville, Tennessee. 2012 Feb 9; Anesthesiology as specialty for Medical Students.

University Talk

1. Starr SA. Winter 2013 Women's Health Nurse Residency Program. VUMC School of Nursing; Nashville, Tennessee. 2013 Feb 12; Nursing Perspective on the Family-Centered Cesarean and Nitrous Analgesia.

Internal Grand Rounds

1. Starr, SA. Grand Rounds. Anesthesiology Dept, Vanderbilt University School of Medicine; Nashville, Tennessee. 2010 Apr; Grand Rounds: Post-Operative Ischemia of the Left Hand in Patient undergoing Exploratory Laparotomy.
2. Sarah Starr and Michelle Collins. OBGYN Grand Rounds. Vanderbilt Dept of Obstetrics; Nashville, Tennessee. 2011 Sep 23; Nitrous Oxide in Labor.

Workshop

1. LGBT Health Week luncheon lecture series. Vanderbilt University Medical School; Nashville, Tennessee. 2010 Apr 13; Medical Professionals in the LGBT community: A provider's perspective.

Presentations at Scientific Meetings

1. Sarah Starr MD and Curtis Baysinger MD. 41st Annual Meeting. Society for Obstetric Anesthesia and Perinatology; Washington, District of Columbia. 2009 Apr; Maternal Forced-Air Warming Prior to and During Cesarean Section.