

CURRICULUM VITAE

CHRISTINE SMITH SCHULMAN RN, MS, CCRN

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CURRENT POSITION

***Consultant in Trauma & Critical Care Nursing
Christine S. Schulman LLC
Portland, Oregon***

ACADEMIC PREPARATION

***1993 Master of Science in Nursing
Magna Cum Laude Graduate
Program of Study: Adult Health and Illness
Oregon Health Sciences University
School of Nursing
Portland, Oregon***

***1981 Bachelor of Science in Nursing
Cum Laude Graduate
University of Wyoming
Laramie, Wyoming***

THESIS

***1993 "An Exploration of the Correlation Between
Lactic Acid Levels and Low Body Temperature in
Moderately Injured Trauma Patients"***

PROFESSIONAL EXPERIENCES

- 2006-Present:** Consultant in Trauma & Critical Care Nursing
Christine S. Schulman LLC
Portland, Oregon
- 2004-2006:** ICU Clinical Nurse Specialist
Providence St. Vincent Medical Center
Portland, Oregon
- 1997-2004:** Trauma & Surgery Clinical Nurse Specialist
Harborview Medical Center
Seattle, Washington
- 1995-1996:** Clinical Instructor, Specialty Nursing Education Programs
Oregon Health Sciences University
Portland, Oregon
- 1993-1995:** Clinical Coordinator, Neurosurgical/Medical and Intermediate
ICUs
Oregon Health Sciences University
Portland, Oregon
- 1985-1993:** Staff Nurse/Charge Nurse, Surgical/Trauma Intensive Care Unit
Oregon Health Sciences University
Portland, Oregon
- 1983-1985:** Staff Nurse/Charge Nurse, Emergency Department
Campbell County Memorial Hospital
Gillette, Wyoming
- 1982-1983:** Staff Nurse/Charge Nurse, Neurosurgical Intensive Care Unit
Denver General Hospital
Denver, Colorado
- 1981-1982:** Staff Nurse/Team Leader, Surgical/Neurosurgical Acute Care Unit
University of Colorado Health Sciences Center
Denver, Colorado

PROFESSIONAL APPOINTMENTS AND COMMITTEES

- 2008 Nominating Committee, AACN
- 2006 Chair, AACN Research Workgroup
- 2005-2007 Chair, Nursing Research Committee, Providence St. Vincent
Medical Center
- 2005-present Clinical Faculty, Oregon Health Sciences University
- 2004-present AACN Research Work Group, Chair Elect for 2006-2007

2004	Greater Portland Chapter, AACN. Portland Oregon. Critical care consortium speaker
2003	Clinical Faculty, Seattle University
2003-present	Nurse Advisory Board on Sepsis, Eli Lilly Critical Care.
1999-Present	Society of Critical Care Medicine National Member
1998-2000	Contributing Editor, <u>Critical Care Nurse</u>
1997-Present	Clinical Instructor, Department of Biobehavioral Nursing and Health Systems, University of Washington School of Nursing
1997-Present	Emergency Nurses Association National Member
1996-2004	American Association of Critical Care Nurses Puget Sound Chapter
1996-1999	American Association of Neuroscience Nurses Seattle Chapter
1995-Present	Manuscript Editor, <u>Critical Care Nurse</u>
1985-Present	American Association of Critical Care Nurses Greater Portland Chapter 1990 Symposium Planning Committee
1994-1997	American Association of Neuroscience Nurses 1995 Education Committee Chairperson-Portland Chapter
1994-1996	Oregon Health Sciences University-Education Council for Shared Governance, Division of Nursing
1993-1996	Adjunct Faculty Appointment Oregon Health Sciences University School of Nursing
1992-1993	Oregon Health Sciences University Charting by Exception Task Force
1992	Oregon Health Sciences University Transfusion Committee Hemorrhagic Protocol Task Force
1981-1982	Sigma Theta Tau Member

PUBLICATIONS

Books:

- 2008 Section Editor. AACN Advanced Critical Care Nursing. (2008). K.K. Carlson (ed). Philadelphia: Elsevier.
- 2008 “The Multiple Trauma Patient in the ICU.” Schulman, CS. In K. Carlson (ed.) AACN Advanced Critical Care Nursing. (2008). Philadelphia: Elsevier.
- 2008 “Traumatic Brain Injury.” Powers, J & Schulman, CS. In K. Carlson (ed). AACN Advanced Critical Care Nursing. (2008). Philadelphia: Elsevier
- 2008 “Multiorgan Dysfunction Syndrome.” Cheek, D., Rodgers, S., & Schulman, CS. In K. Carlson (ed). AACN Advanced Critical Care Nursing. (2008). Philadelphia: Elsevier
- 2008 “Neotiating a Job.” Schulman, CS. In NACNS (ed). Toolkit for the New CNS. (in press).
- 2004 “The CNS Role in Clinical Inquiry.” Schulman, CS. In M. McKinley (ed.) Acute & Critical Care Nuse Specialists: Sharing Best Practices. 2007. Philadelphia: Elsevier.

Journal Publications

- 2008 “Comparison of Fingerstick and Central Venous Point of Care Glucose Testing to a Laboratory Gold Standard.” (in press). Shearer A., Boehmer M., Closs M., Delarosa R., McGrath R., Hamiton J, Horton K, Schulman CS. American Journal of Critical Care.
- 2008 “Developing an Evidence-Based Practice Program.” Schulman, CS. AACN Advanced Clinical Issues. (in press). Philadelphia: Elsevier.
- 2003 “A FASTER Method of Detecting Abdominal Trauma.” Schulman, CS. Nursing Management. 2003; 34(9): 47-49.
- 2003 “Is Your Patient Fully Resuscitated?” Schulman, CS. Nursing Management. 2003; 34(7):44-47.
- 2002 “New Thoughts on Sepsis, the Unifier of Critical Care.” Schulman, CS. Dimensions of Critical Care Nursing. 2002; 22(1):20-30.
- 2002 “Is Your Patient Fully Resuscitated? Here’s How to Find Out.” Schulman, CS. Nursing 2002. 2002; 32(5):32cc1-8.

- 2002 “Resuscitation End Points: Are We Looking at the Right Stuff.”
Schulman, CS. Dimensions of Critical Care Nursing. 2002; 21(1):2-10.
- 2001 “Establishing a Collaborative Trauma Training Program with a
Community Trauma Center for Military Nurses.” McNamara KJ,
Schulman CS, Jepsen D, Cuffley JE. Journal of International Trauma
Nursing. 2001; 7(2):49-56.
- 2000 “Rewarming Techniques” and “Rapid Infusion Devices.” In K Carlson
and D. Lynn-McHale (eds). AACN Procedure Manual for Critical Care
(2000). W.B. Saunders: Philadelphia.
- 2000 “Employee Orientation Pathways.” Good VS, Schulman CS. Critical
Care Nurse. 2000; 20(3):75-85.
- 1999 “Continuous Arteriovenous Rewarming: A Bedside Technique.”
Schulman CS, Pierce B. Critical Care Nurse. 1999; 19(6):54-63.
- 1995 “Geriatric Case Study,” Emergency Nursing Association Course in
Advanced Trauma Nursing (CATN). (Mosby).

PROFESSIONAL CERTIFICATIONS

- 1997 (Expired) Trauma Nurse Core Curriculum Certification (TNCC)
and TNCC-Instructor
- 1996 Course in Advanced Trauma Nursing Certification (CATN)
- 1992 (Current) Certified Critical Care Registered Nurse (CCRN)
- 1987 (Current) Advanced Cardiac Life Support Instructor (ACLS)
- 1984 (Expired) Certified Emergency Nurse (CEN)

COURSE DEVELOPMENT & COORDINATION

- 2008 Washington Rural Critical Care Nursing Consortium, Pullman
Regional Hospital, Pullman, Washington
- 2007 CCRN Review Course, Greater Portland Chapter AACN, Portland,
Oregon
- 2007 Washington Rural Critical Care Nursing Consortium, Pullman
Regional Hospital, Pullman, Washington.

POSTER PRESENTATIONS

- 2008 "Comparison of Fingerstick and Central Venous Point of Care Glucose Testing to a Laboratory Gold Standard." AACN National Teaching Institute, Chicago, Illinois.
- 2008 "Comparison of Finger and Forehead Oximetry Sensors in Post Anesthesia Care Patients. ASPAN 27th National Conference, Grapevine, Texas.

SCHOLARLY PRESENTATIONS

- 2008 "Nurses Take Charge of Temperature Control." Webinar, Inquisit Educational Media. June 4, 2008.
- 2008 "New Trends in Trauma," "Manipulating the Body's Thermostat," "Wet-to-Dry: New Trends in Fluid Resuscitation," AACN National Teaching Institute, Chicago, Illinois, May 2008.
- 2008 "Endpoints of Resuscitation," "Putting the Sepsis Bundles to Work," "Inducing Hypothermia to Improve Neurologic Outcomes." Wyoming Emergency Nurses Association, Casper, Wyoming, April 2008.
- 2008 "Cerebral Concussion," "Endpoints of Resuscitation," "Hypothermia, Acidosis, & Coagulopathy," "Geriatric Trauma." Tacoma Trauma Trust, Tacoma General Hospital, January 2008.
- 2007 Trauma Education Symposium, Madigan Army Medical Center, September 2007.
- 2007 "CNS Survival Strategies: Staying Afloat in a Sea of Change," "Manipulation of the Body's Thermostat," "Using a Shared Governance Nursing Research Council to Facilitate Clinician Led Research," "The Inflammatory Response to Trauma: The Oooh-La-La Response." 2007 AACN National Teaching Institute, May 2007.
- 2007 "Cardiac Trauma," "Putting the Sepsis Bundles to Work" and "Inflammatory Response to Trauma." Critical Care Update Symposium, Casper, Wyoming
- 2007 "Manipulation of the Body's Thermostat," "Alcohol and Trauma", "Endpoints of Resuscitation," "Geriatric Trauma". Trauma Update, Anchorage, Alaska
- 2007 "Endpoints of Resuscitation" and "The Bloody Lethal Triad of Trauma." Gore-Farha Critical Care Nursing Symposium, Wichita, Kansas.

- 2007 “Creating an Environment of Clinical Inquiry: EBP and Clinician Led Research.” Fairbanks Memorial Hospital, Fairbanks, Alaska.
- 2007 “Cardiac Trauma: Medning the Broken Heart” Spring Cardiovascular Update, Providence Medical Center, Everett, Washington.
- 2006 “End-Tidal CO2 Monitoring: A New Resuscitation Endpoint.” Shelton Community Hospital, Shelton, Washington
- 2006 “Manipulation of The Body’s Thermostat: Clinical Consequences of Being Too Hot and Too Cold.” AACN National Teaching Institute, Anaheim, California.
- 2006 “Pediatric Sepsis: From Bench to Bedside.” AACN National Teaching Institute, Anaheim, California.
- 2006 “Endpoints of Resuscitation” and “Blood Transfusions: Are they as good as we think they are?” New Horizons AACN Region 1 Critical Care Symposium, Manchester, New Hampshire.
- 2006 “Putting the Sepsis Bundles to Work: Developing a Multidisciplinary Protocol.” 1st Annual Seattle Nursing Research Conference, Seattle, Washington.
- 2006 “Endpoints of Resuscitation” “Trends in Transfusions.” Region 1 AACN Spring Symposium, Manchester, New Hampshire.
- 2005 Current Issues in Critical Care (Multiple presentations), Greater Edmonton Chapter of Critical Care Nurses, Edmonton, Alberta.
- 2005 “Improving Outcomes using the Sepsis Bundles.” Greater Portland Chapter AACN-SCCM Fall Symposium. Portland, Oregon.
- 2005 “Alcohol in the ICU Patient.” University of Washington School of Nursing Annual Medical Surgical Nursing Conference. Seattle, Washington.
- 2004 “Endpoints of Resuscitation: Are We Looking at the Right Stuff” and “New Trends in Transfusions.” Critical Care & Trauma Update. Las Vegas, Nevada.
- 2004 “Emerging Concepts in the Resuscitation of Critically Ill Trauma Patients.” AACN National Teaching Institute Pre-Conference Workshop, Orlando, Florida.
- 2004 “Concepts in Critical Care Education.” Victoria ICU Consortium. Victoria, British Columbia, Canada.
- 2004 “Trauma & Critical Care Education Day.” Edmonton, Alberta Critical Care Nurses Association, Edmonton, Alberta, Canada.

- 2003 “Creating an Environment of Clinical Excellence Through Clinical Inquiry” and “Case Studies that Make Physiology Make Sense.” Greater Portland Chapter AACN-SCCM Fall Symposium, Portland, Oregon.
- 2003 “Creating an Environment of Clinical Excellence Through Clinical Inquiry.” Puget Sound Chapter AACN Fall Symposium, Seattle, Washington.
- 2003 “Topics in Critical Care.” Calgary Critical Care Nurses Association, Calgary, Alberta, Canada.
- 2003 “Critical Care Education Day.” Vancouver Critical Care Nursing Consortium, Vancouver, British Columbia, Canada.
- 2003 “Sepsis & Multisystem Organ Failure: The Unifyer of Critical Care” and “Creating an Environment of Clinical Excellence.” National Emergency Nurses Association Educational Symposium, Philadelphia, Pennsylvania.
- 2003 “Sepsis & Multisystem Organ Failure: The Unifyer of Critical Care.” Evergreen Chapter AACN Spring Symposium, Everett, Washington.
- 2002 “Physiologic Considerations in the Care of the Geriatric ICU Patient.” Puget Sound Chapter AACN Fall Symposium, Seattle, Washington.
- 2002 “Endpoints of Resuscitation: Are We Looking at the Right Stuff?” Greater Portland Chapter AACN Fall Symposium, Portland, Oregon.
- 2002 “Creating an Environment of Clinical Excellence: Putting WOW! Back into Your Practice.” Billings Chapter AACN, Billings, Montana.
- 2002 “Rethinking Blood Transfusions: Are They as Good for You as We Think They Are?” Old West Trauma Symposium, Cheyenne, Wyoming.
- 2002 “Special Issues in Trauma Care” Canadian Association of Critical Care Nurses National Symposium, Pre-Conference Workshop. Niagara Falls, Ontario, Canada.
- 2001 “Sepsis & MSOF: Emerging Therapies.” Multiple presentations in varied formats in California, Oregon, and Washington.
- 2001 “Aha! Complex Case Studies that Make Physiology Make Sense” and “Alcohol & Trauma: Impact on Physiology, Assessment and Interventions.” Old West Trauma Symposium, Cheyenne, Wyoming.

- 2001 “Case Deliveries in Oxygen Delivery & Consumption” and “Hypothermia, Acidosis, & Coagulopathy: A Lethal Triad in Trauma.” Dynamics 2001, Canadian Association of Critical Care Nurses, Victoria, British Columbia, Canada.
- 2001 “Hypothermia, Acidosis, & Coagulopathy: A Lethal Triad in Trauma.” Scripps Hospital Annual Trauma & Critical Care Conference, San Diego, California.
- 2001 “Establishing a Collaborative Trauma Training Program for Military Nurses with a Community Level One Trauma Center. Shea-Arentzen Navy Nurse Corps Annual Symposium, Arlington, Virginia.
- 2001 “Sepsis and Multisystem Organ Failure.” CCRN Review Course. Carlson Consulting Group, Tacoma & Seattle, Washington.
- 2001 “Trauma Nursing in the Emergency Department.” 8 Hour Course for Emergency Nursing Education Consortium, Carlson Consulting Group/Bellevue Community College, Seattle, Washington.
- 2000 “Maintaining Cerebral Perfusion in Head Injuries” and “End Points of Resuscitation.” Old West Trauma Symposium, Cheyenne, Wyoming.
- 2000 “End Points of Resuscitation: Are We Looking at the Right Stuff?” Puget Sound Chapter AACN Annual Symposium, Seattle, Washington.
- 2000 “Trauma in the Elderly” and “Alcohol and Trauma.” Rural Trauma Symposium, Great Falls, Montana.
- 2000 “Hypothermia, Acidosis, and Coagulopathy: A Lethal Triad in Trauma.” Greater Portland Chapter AACN/SCCM Annual Symposium, Portland, Oregon.
- 2000 “End-Points of Resuscitation: Are We Looking at the “Right Stuff?” AACN National Teaching Institute, Orlando, Florida.
- 2000 “Gastrointestinal System Review” CCRN Review Course, Carlson Consulting Group, Seattle, Washington.
- 2000 “Hypothermia, Acidosis, Coagulopathy: A Lethal Triad in Trauma.” Oregon Health Sciences University Trauma Education, Portland, Oregon.
- 2000 “Looking at the Crash Scene Under the Clinical Microscope” Eastern Washington Trauma Symposium, Spokane, Washington.
- 1999 Continuous Arteriovenous Rewarming (CAVR): Reversing Life-Threatening Hypothermia in the Trauma Patient.” Emergency Nurses Association Scientific Assembly, Washington, D.C.

- 1999 "Oxygen Consumption in the Trauma Patient." Emergency Nurses Association Scientific Assembly, Washington, D.C.
- 1999 "To Swan or Not to Swan: That is the Question." AACN-Puget Sound Chapter Fall Symposium, Seattle, Washington.
- 1999 "Creating Environments for Clinical Excellence: Putting the WOW Back into your Practice." AACN National Teaching Institute, New Orleans, Louisiana.
- 1999 "New Technologies in the ICU Resuscitation of the Critically Injured Trauma Patient." AACN National Teaching Institute, New Orleans, Louisiana.
- 1999 "Case Studies in Oxygen Delivery & Consumption," "Geriatric Trauma," and "The Deadly Triad of Hypothermia, Acidosis and Coagulopathy." Deaconess Hospital, Billings, Montana.
- 1999 Preceptor Workshop, St. Peter's Hospital, Helena, Montana.
- 1999 "Looking at the Crash Scene Under the Clinical Microscope" and "New Strategies in ICU Trauma Resuscitation." Stanford Trauma Conference, Palo Alto, California
- 1998 "To Swan or Not to Swan: That is the Question." Puget Sound Chapter AACN, Seattle, Washington
- 1998 "Anatomy, Physiology, Assessment & Treatment of Shock." Seattle Area Critical Care Consortium, Seattle, Washington
- 1998 "The Triad of Trauma Death: Hypothermia, Acidosis, and Coagulopathy." Western States Continuing Education in Trauma, Billings, Montana
- 1998 "Considerations in Geriatric Trauma." Rural Trauma Care Symposium, Billings, Montana
- 1998 "Physiologic Effects of Alcohol in the ICU: Don't Be Fooled." Trauma Care 1998 Ninth Annual Conference, Harborview Medical Center, Seattle, Washington.
- 1998 "Trauma Care in the ICU: Then and Now." Totally Trauma, Bay Area Trauma Education Consortium, Lake Tahoe, Nevada.
- 1998 "Physiologic Effects of Alcohol in the ICU: Don't be Fooled." AACN-Puget Sound Chapter Spring Symposium, Seattle, Washington.
- 1998 "A Dramatic Day in the ICU: Esophageal Varices." AACN-Puget Sound Chapter Spring Symposium, Seattle, Washington.

- 1998 “Cerebral Embolic Events” and “Seizures.” CCRN Review Course, Portland, Oregon.
- 1997 “Oxygenation & Ventilation” Course for Advanced Trauma Nursing, Harborview Medical Center, Seattle, Washington.
- 1996 “Pathologic Eye Signs, Intracranial Pressure, and Spinal Cord Injury” AANN Certification Prep Course, Bellevue Community College, Bellevue, Washington.
- 1996 “Intracranial Pressure Monitoring, Head Trauma, Cerebral Embolic Events, and Status Epilepticus.” CCRN Certification Course; Linfield College; Portland, Oregon.
- 1995 “Alcohol in the ICU: Don’t Be Fooled!” Greater Portland Chapter AACN-Society of Critical Care Medicine Fall Symposium; Portland, Oregon.
- 1995 “ICU Management of Neurointerventional Radiology Patients with Subarachnoid Hemorrhage.” National Symposium American Association Neuroscience Nurses; Portland, Oregon.
- 1995 “Intracranial Pressure, Head Injury, and Cerebral Embolic Events.” CCRN Certification Course; Portland, Oregon.
- 1994 “Idiosyncrasies of Geriatric Trauma.” Greater Portland Chapter AACN-Society Critical Care Medicine Fall Symposium; Portland, Oregon.
- 1994 “JCAHO Competency Testing.” Oregon Rural Nurse Managers Association; Dallas, Oregon.
- 1994 “Advanced Analysis of the Intracranial Pressure Pulse Wave.” National Symposium American Association Neuroscience Nurses; Minneapolis, Minnesota.
- 1994 “Physiologic Considerations in Geriatric Trauma.” Oregon Health Sciences University School of Nursing Satellite Educational Network; Portland, Oregon.
- 1994 “Intracranial Pressure and Head Injury.” CCRN Certification Course; Portland, Oregon.
- 1994 “Geriatric Considerations in Trauma.” New Waves in Critical Care; Newport, Oregon.
- 1993 “Selected Neurologic Emergencies.” CCRN Certification Course; Portland, Oregon.

- 1993 “Geriatric Considerations in Trauma.” Oregon Nurses Association Special Interest Group; Portland, Oregon.
- 1993 “Geriatric Considerations in Trauma.” Update in Neuro and Trauma Critical Care; Southwest Washington Medical Center; Vancouver, Washington.
- 1993 “Neuro Anatomy and Physiology.” Oregon Health Sciences University Emergency Nursing Course; Portland, Oregon.
- 1992
Nurses “Initial Resuscitation of the Geriatric Trauma Patient.” Emergency Association Annual Conference; Portland, Oregon.
- 1992 “Fluid Resuscitation” and “GI Anatomy and Physiology: Specific GI Problems in the ICU.” Oregon Health Sciences University ICU Core Course; Portland, Oregon.
- 1992 “Update: Geriatric Trauma.” Oregon Health Sciences University; Portland, Oregon.
- 1992 “Initial Resuscitation of the Geriatric Trauma Patient.” Northwest States Trauma Conference; Sunriver Resort, Oregon.
- 1992 “Geriatric Trauma in the Emergency Department.: Southwest Washington Medical Center; Vancouver, Washington.
- 1992 “Neuro Anatomy, Physiology, and Selected Neurologic Emergencies.” Oregon Health Sciences University Emergency Nursing Course; Portland, Oregon.
- 1992 “Considerations in Pre-Hospital Geriatric Patients: Physiologic Changes Associated with Aging.: Clark County Paramedic Recertification Course; Vancouver, Washington.
- 1991 “Cerebrovascular Accidents, Care of the Neurosurgical Patient, Seizures, and Head Trauma.” CCRN Certification Course; Portland, Oregon.
- 1991 “Trauma in the Elderly Patient.” Northwest States Trauma Conference; Sunriver Resort, Oregon.
- 1991 “Trauma Patient Case Review.” Hood River Hospital; Hood River, Oregon.
- 1991 “Trauma Patient Case Review.” White Salmon Hospital; White Salmon, Washington.

- 1991 "Trauma in the Elderly Patient." Sacred Heart Hospital; Eugene, Oregon.
- 1990 "Adult Respiratory Distress Syndrome." Oregon Health Sciences University Paramedic Program; Portland, Oregon.
- 1990 "Assessment and Management of Sepsis." Oregon Health Sciences University Paramedic Program; Portland, Oregon.
- 1990 "Fluid Resuscitation." Oregon Health Sciences University Critical Care Core Curriculum; Portland, Oregon.

COLLABORATION WITH INDUSTRY

- 2007-Present ScvO2 Monitoring in Critical Illness, Faculty Oversight for educational CD-ROM, (in production). ProCE, Chicago, Illinois.
- 2007-Present Speaker & Clinical Consultant, Hutchinson Technology, Hutchinson, Minnesota
- 2006-Present Speaker, Alsius Corporation, Irvine, California
- 2002-Present Speaker & Consultant, Eli Lilly, Indianapolis, Indiana

- 1990 "Neurotrauma and Assessment." St. Anthony's Hospital; Pendleton, Oregon.
- 1989 "Adult Respiratory Distress Syndrome" and "Assessment and Management of Sepsis." Oregon Health Sciences University Paramedic Program; Portland, Oregon.
- 1989 "Fluid Resuscitation." Oregon Health Sciences University Critical Care Core Curriculum; Portland, Oregon.
- 1989 "Hypothermia in the Trauma Patient." Oregon Health Sciences University Trauma Nursing Grand Rounds; Portland, Oregon.
- 1989 "Unique Neck Injuries." Oregon Health Sciences University Trauma Nursing Grand Rounds; Portland, Oregon.
- 1988-1989 Miscellaneous ICU, Trauma, and ACLS courses.

June 2007