

# PHARMACY AND THERAPEUTICS COMMITTEE ANNUAL REPORT

May 20, 2011

The P&T Committee is responsible for the development and surveillance of drug use policies and practices within the institution, including the maintenance of the UNC Hospitals Drug Formulary. The Committee is chaired by Abhi Mehrotra, MD (installed as chair - June 2010), and meets monthly. The staff of the Medication Information, Policy, and Safety team within the Department of Pharmacy provides research and administrative support to the Committee and its Subcommittees.

The Committee met nine times during the twelve months of this reporting cycle. Members of the Committee are shown in Appendix B.

## Formulary Decisions

- A. Thirty-two drugs were approved for addition to the Formulary. Six drugs were reviewed and denied Formulary status, and four were removed from the Formulary. Appendix A summarizes these decisions.
- B. The Committee reviewed and approved an extension of the use of IV dexmedetomidine to specially trained nurses on the Pediatric Sedation Team working under the supervision of Anesthesiology. (July-Aug 2010)
- C. In 2008, the Committee recommended to the Medical Staff Executive Committee a three-strikes approach to the use of Sample Medications in UNC Health Care Ambulatory Care Clinics. This policy was implemented and regular audits of the clinics are conducted. The Committee reviewed a report on the 2<sup>nd</sup> round (Aug 2010) and 3<sup>rd</sup> round (March 2011). Letters were issued to 8 clinics revoking their privilege to maintain drug samples in their clinics.
- D. The Committee reviewed an Annual Report of Activities and an Annual Summary of Medication Variances from the Medication Safety Committee, a subcommittee of the P&T Committee. (Feb 2011) The Committee also reviews monthly any level 5 or 6 medication variance reports.
- E. The Committee heard a report on the Prior Authorization Program recently established through the Pharmacy Department. This program assist in verifying insurance coverage for expensive medications prior to initiating therapy. During a 2 month pilot period, over \$80,000 in medication expense was captured that would previously have been lost. (Jan 2011)
- F. The P&T Committee has utilized the Pharmacy Prior Authorization Program as a way to increase access to new, increasingly expensive medications for our patients while limiting the financial risk to the institution.
- G. The Committee was provided with monthly updates on medications that are in short supply. Committee members were regularly consulted on management of critical drug shortages within their area of expertise. This information on the growing concerns over drug shortages was included in a presentation to the Quality Council.
- H. The Adult and Pediatric Sedation Committees were added as Subcommittees under the umbrella of the P&T Committee.

## Subcommittees

- A. The Anti-Infective Subcommittee remains an active subcommittee, meeting bimonthly. David Weber, MD, serves as chair, and a list of the members of this Subcommittee is included in Appendix C. Throughout the year, this Subcommittee reviews new anti-infective agents, as well as anti-infective use and resistance data, and makes recommendations for changes in the UNC Formulary as needed (e.g., restrictions, deletions, additions).

- 1) The Subcommittee monitors compliance with the post-surgical antimicrobial prophylaxis (SCIP) protocols that enable the hospital to meet the requirements from Medicare/Medicaid (CMS) and the BCBS contract.
  - 2) The Subcommittee members are contributors and serve as the main reviewers of a Committee publication: UNC Pocket Guide to Antimicrobial Therapy
- B. The Medication Safety Committee (MSC) continues to be a multidisciplinary, quality improvement committee created to oversee the development of safe systems within the medication use process. The MSC is a Subcommittee of the P&T Committee, and any hospital-wide issues are addressed to the P&T Committee. The MSC meets monthly and reviews medication variance issues, which include potential and actual adverse drug events, on a continuous basis. It proactively implements practice solutions and processes that prevent patient harm. A summary of the activities of this subcommittee is attached in Appendix D.
- C. The Oncology Subcommittee is chaired by Paola Gehrig, MD. The Committee meets bimonthly to review oncology agents and advise the P&T Committee on policies regarding oncologic agents. The Subcommittee considered 7 agents for addition to the Formulary, recommending addition of 5 and denial of 2.
- D. The Radiology Subcommittee was created in 2008 and is chaired by Richard Semelka, MD. This Subcommittee meets as needed to review radiologic agents and make recommendations to the P&T Committee regarding these agents. The Subcommittee met 2 times during the reporting period.

#### Policies and Protocols/Guidelines

The Committee discussed and provided input into the following issues:

- Use of the Hospital DEA number by providers (June 2010)
- Patient Weight Documentation and Display in CPOE (Aug 2010)
- CPOE Orderset Review Process (Sept 2010)
- Standard Medication Administration Times (Sept 2010)
- UNC Health Care System policy on prescription orders and refills (Feb 2011)

The Committee reviewed and approved the following policies/protocols/guidelines during the year.

- Adult Febrile Neutropenia Standing Orders (Oct 2010)
- Antibiotic Lock Guidelines (Feb 2011)
- Extension of Sterility of Injectable Medications (Aug – Nov 2010)
- Hypersensitivity Reaction Treatment Standing Orders for Oncology Services (Oct 2010)
- Medication Reconciliation Policy (Aug 2010, Feb 2011)
- Prescribing, Dispensing and Administration of Chemotherapy and Immunotherapy (January 2011, March 2011)
- Surgical Prophylaxis Redosing Guidelines (Feb 2011)

#### Publications

The UNC Hospitals Drug Formulary is accessible online and is also available in a format that can be downloaded to a PDA. The online version is updated regularly throughout the year and can be accessed at <http://pharmacy.intranet.unchealthcare.org/pharmacy> or more directly at <http://www.crlonline.com>. It can also be accessed from links within the WebCIS system.

The UNC Pocket Guide to Antimicrobial Therapy is currently available online at [http://pharmacy.intranet.unchealthcare.org/clinresources/clinguidelines/abxguide\\_html](http://pharmacy.intranet.unchealthcare.org/clinresources/clinguidelines/abxguide_html) and is updated each Spring in advance of the new academic year. The guide advises UNC clinicians on appropriate selection and use of antibiotic therapy.

APPENDIX A: Summary of Formulary Actions

PRODUCT	APPROVED	DENIED	DELETED	RESTRICTIONS/COMMENT
Acetaminophen IV	Mar 2011			
Antibiotic Lock Therapy	Feb 2011			Treatment only when catheter cannot be pulled
Aztreonam Inhaled	Oct 2010			Use patients own supply. Not avail to hospitals.
Budesonide/Formoterol Inhaler (Symbicort)	Feb 2011			
Capsaicin patch	Mar 2011			Spine and Pain Clinic only
Carbazitaxel	Jan 2011			Oncology. Benefits investigation required
Collagenase clostridium histolyticum inj.	June 2010			Donald Bynum, MD only
Dabigatran	Jan 2011			FDA-approved indication
Denosumab (Prolia)	Nov 2010			Outpatient Clinics
Denosumab (Xgeva)	Nov 2010			Oncology areas (inpt, outpt)
Dexamethasone Intravitreal Implant	Nov 2010			Ophthalmology Clinic
Ethanol Catheter Locks		June 2011		
Ethyl Chloride spray			July 2010	
Ferumoxytol	Nov 2010			Nephrology Clinic, Transplant Clinic
Fingolimod	Feb 2011			
Fluocinolone Implant	Nov 2010			Ophthalmology Clinic – order as needed following benefits investigation
High potency influenza vaccine		June 201		
Hydromorphone epidural	Mar 2011			Standard concentrations
Ibuprofen IV		Mar 2011		
Lacosamide	Oct 2010			Adult and Pediatric Neurology
Lidocaine 15%/prilocaine 5% topical cream	Mar 2011			Plastic Surgery clinic for use prior to CO2 laser procedures.
Lidocaine Spray Kit	Nov 2010			Cardiac Ultrasound
Lidocaine/Tetracaine patch (Synera)	Feb 2011			Pediatric Sedation Team, Plastic Surgery Clinic
Loteprednol ophthal drops	Feb 2011			ACC Day Op/Outpt Pharmacy
Nelarabine		Nov 2010		
Pain Ease spray	July 2010			Replace Ethyl chloride
Palifermin	Feb 2011			Added Pediatric BMT to authorized users
Paliperidone depot inj	July 2010			Psychiatry Outpatient Clinics
Pegloticase	Feb 2011			Rheumatology
Pneumococcal 13-valent vaccine	June 2010			
Poractant	July 2010			Trial approved - to replace beractant
Probiotics			Mar 2011	
Rifaximin	Nov 2010			
Rosiglitazone			July 2010	
Sipuleucil-T (Provenge)	Jan 2011			Oncology. Benefits investigation required
Tapentadol		Mar 2011		
Telavancin	June 2010			Restricted indications
Tocilizumab	June 2010			Rhematology
Vit B6/Vit B12/Folic Acid (Foltx)			July 2010	
Valrubicin		Nov 2010		
Voluven	Feb 2011			
Wilate	Feb 2011			
<b>Total</b>	32	6	4	

APPENDIX B: Pharmacy and Therapeutics Committee Members 2010-2011

<b>Member</b>	<b>Department</b>
Abhi Mehrotra, MD- Chair	Emergency Medicine
Robert Kyle, MD	Anesthesiology
Tim Ives, PharmD	Family Medicine
Paola Gehrig, MD	Gynecology-Oncology
Sharon Coulter-James, RN	Hospital Administration
VACANT	Housestaff Representative
David Weber, MD	Infectious Diseases/Occupational Health
Laura Harmon	Accreditation
John Buse, MD	Medicine
Alan Hinderliter, MD	Medicine – Cardiology
Ken Ataga, MD	Medicine-Oncology
Heather Krumnacher, RN	Nursing Education
Yara Park, MD	Pathology and Lab Medicine
Albert Collier, MD	Pediatrics-Infectious Diseases
Rowell Daniels, M.S., PharmD	Pharmacy – Director
Maryann Oertel , PharmD (Secretary – nonvoting)	Pharmacy - Drug Information
Jay Pomerantz, MD	Medical Director - Clinical Care Management
Kayvon Salimi, MD	Psychiatry
Renaef Stafford, MD	Surgical Critical Care
VACANT	Transplant Surgery

**Anti-Infective Subcommittee**

Member	Department
David Weber, MD – Chair (beginning July 2004)	Infectious Diseases/Occupational Health
Albert Collier, MD	Pediatric Infectious Diseases
Stacy Campbell-Bright, PharmD, BCPS	Pharmacy – MICU/RICU
Lindsay Daniels, PharmD	Pharmacy – Infectious Diseases
John Juliano, MD	Infectious Diseases
Melissa Miller, PhD	Laboratories - Microbiology
Maryann Oertel, PharmD	Pharmacy – Drug Information
Amanda Peppercorn, MD	Infectious Diseases
Ralph Raasch, PharmD	UNC School of Pharmacy – Infectious Diseases
Kamakshi Rao, PharmD	Pharmacy-Oncology/BMT
Jonathon Serody, MD	Oncology/BMT
Edwin Smith, PharmD	Manager, Medicine/Surgery/OR Services, Pharmacy
Megan Young, PharmD	Pharmacy - Pediatrics

**Medication Safety Committee (MSC)**

Member	Alternate	Department	Work Area Represented
Kayla Hansen - Co Chair	N/A	Pharmacy	Pharmacy Admin/P&T
Joel Ray – Co Chair	N/A	Nursing	Nursing Directors
Deddie Craig		AC Administration	ACC
Todd Barbee	Megan Wiegand	ISD	ISD
Laura Harmon	Kathryn Johnson	Legal/RM	Risk Management
Vacant		Medical Staff	
Vacant		Medical Staff	
Jennifer Johnson		Nursing	Surgery Services
Angela Spruill	Soraya Flores-Tan	Nursing	Oncology
Susan Mason		Nursing	Oncology
Lindy McClure		Nursing	Medicine
Pat Decator		Nursing	Oncology
Jenny Dixon		Nursing	Children’s Specialty Clinic
Vacant		Nursing	Psych
Kelly Revels	Sandy Pabers	Nursing	ED
Jacci Harden		Nursing	Nurse Manager, Heart & Vasc
Christi Herrera	Angela Pittman	Nursing	3 Women’s
Stephanie Hoppin		Nursing	CV Surgery
Robin Bawden	Kathy King	Nursing	Medicine
Sheryl Galin	Micky Gonazales	Nursing	Children’s
Stephanie Lane-Barefoot	Jocelyn Gladney	Nursing	OR
Barbara Leshney		Nursing	Peds Oncology
Megan O’Connor		Nursing	Dialysis
Reanna Swanson		Nursing	6 Women’s
Emily Whittle	Charles Leighton	Pharmacy	Technician, Inpatient
Laura Powers	Joanna Lewis	Pharmacy	Decentral Services
Kathy Riley	Shawna Beck	Pharmacy	Pharmacy Pediatrics
Cathy Sampey	Luanne Williams	Pharmacy	Inpatient Operations

Erinn Rowe	Wendy Kuo	Pharmacy	IV Room/Narcotics
Dan Cronin	Dennis Pfeiffer	Pharmacy	Inpatient Operations/IT
Ian Hollis	Emily Durr	Pharmacy	Clinical Pharmacy
Elizabeth Forshay	Robert Granko	Pharmacy	Pharmacy Administration
Tippu Khan	Aimee Faso	Pharmacy	Oncology
Ashley Lewis		Pharmacy	Drug Information
Jennifer Barrow	Paul Dombrower	Pharmacy	Clinical Pharmacy
Blythe Crabtree		Pharmacy	Pharmacy Outpatient
Neelu Patil		Pharmacy	JCAHO Compliance
Celeste Mayer	Dale Cronin	PIPS	Patient Safety
Larry Mandelkehr	Kathleen Lowell	PIPS	PIPS
Maryann Oertel		P&T Committee	
Davia Silberman		Radiology	Radiology
Otis Patterson		Respiratory	

### **Oncology Subcommittee**

<b>Member</b>	<b>Department</b>
Paola Gehrig, MD – Chair	Gyn-Oncology
Ken Ataga, MD	Benign Hematology
Thomas Stinchcombe, MD	Oncology - Adult
Kim Kasow, MD	Oncology - Pediatric
Maryann Oertel, PharmD	Pharmacy – Drug Information/P&T Committee
John Valgus, PharmD	Pharmacy – Outpatient Oncology
Kamakshi Rao, PharmD	Pharmacy – Adult Oncology (Inpatient)
Vacant	Transplant
Kathy Riley, PharmD	Pharmacy – Pediatric Oncology
Scott Savage, PharmD	Pharmacy Administration
Chris Walko, PharmD	
Ashley Lewis, PharmD	Pharmacy – Drug Information
John Collier, RN	Nursing – Outpatient Oncology
Erin Graham, RN	Nursing – Pediatric Oncology
Steve Villano	Nursing – Adult Oncology
Susan Mason, RN	Nursing – Nursing Education - Oncology

### **Radiology Subcommittee**

<b>Member</b>	<b>Department</b>
Richard Semelka, MD – Chair	Radiology
Todd Smiley	Radiology
Katie Andrews	Radiology
Greg Beavers	Radiology
Tom Beckman	Radiology
Kelan Brown	Radiology
Kate Clegg	Cath Lab
John Crossgrove	Radiology
Lewis Daughtry	Radiology
Patricia Dodson	Nursing Education
James Galbreath	Cath Lab
Elizabeth Forshay	Pharmacy
Whitney Honeycutt	Radiology
Karen Smith	Radiology Research (University)
Judy Miller	Radiology
Leigh Moose	Radiology

Katie Novak	Radiology
Maryann Oertel	Pharmacy
Britt Oldham	Cath Lab
Seyed Shah	Radiology
Sonya Whitehead	Radiology
Yolanda Dunmore	Radiology
Ann Whitlow	Radiology

### **Adult Sedation Committee**

<b>Member</b>	<b>Department</b>
Jonathan L. Jones, MD – Chair	Emergency Medicine
Merr Kerr	Legal
Celeste Mayer	Patient Safety
Kate Shane	Radiology
Bonnie Streeter	GI Endoscopy
Jean Calderone	Emergency Medicine
Lydia Chang	Pulmonary Medicine
Kris Barman	GI Endoscopy
John Haithcock	Pulmonary/Bronchoscopy
Lisa Gangarosa	GI Endoscopy
Kathleen Smith	Anesthesiology
Stacy Campbell-Bright	Pharmacy

### **Pediatric Sedation Committee**

<b>Member</b>	<b>Department</b>
Tina Willis, MD – Chair	Pediatric Intensive Care

## **Medication Safety Committee Annual Report 2010**

### **Action Items/Ongoing Issues from January – December 2010:**

- 1) **High Alert/SALAD/Hazardous Drug Education:** To improve staff understanding of these important safety issues, the Committee developed a hospital-wide educational poster focusing on definition, examples, and risk reduction strategies implemented for UNC's high alert medications, sound-alike/look-alike (SALAD) drugs, and hazardous drugs. The poster was disseminated to all staff for posting near Pyxis machines.
- 2) **Multi-dose vial policy:** In response to new requirements from The Joint Commission requiring all multi-dose vials to be discarded 28 days after opening, the Committee approved a revised Multi-dose Vial Policy.
- 3) **Neuromuscular Blocking Agents risk reduction strategies:** During the annual review of High Alert and Sound-Alike/Look-Alike medications, neuromuscular blocking agents were added as both high alert and Sound-Alike/Look-Alike medications.
- 4) **Medication Learning Moments:** The Committee developed and distributed various educational materials based upon actual observed medication variances. These were distributed to nurse managers for education to the unit nurses. Topics included: administration of oral medication in syringes, home oral medication conversion to IV upon hospital admission, sound-alike/look-alike medications, and adverse drug reactions – allergy versus adverse effect.
- 5) **Medication Administration Record to Order - Reconciliation Process:** A revised process was first piloted on several units and then implemented hospital-wide. A nurse now uses the CPOE active medications print-out to reconcile the MAR versus the previous day's MAR alone. Medication orders or order changes were omitted prior to reconciling against the CPOE profile.
- 6) **Policy Revisions:** The Committee approved changes to the following policies: Abbreviations, Diabetes Self-Management, Medication Management: High Alert Medications, Medication Management: Concentrated Electrolytes, Medication Management: Prescribing Practices, Adverse Drug Reaction Program, and Drug Samples. The Committee has also approved updates and revisions to the various pump drug libraries at use within UNC.
- 7) **Enoxaparin Label Safety Concern:** In response to an ISMP report of needle-sticks related to non-adherent enoxaparin labels, the Committee developed and distributed a Medication Safety Alert for distribution by nurse managers.



- 8) **Epidural/Intrathecal/Peripheral Nerve Block Working Groups:** Working groups were developed within the Committee to address issues with these routes of administration. The working groups took the following actions:
- Reviewed whether the B.Braun pump purchased for epidural use should also be used for peripheral nerve blocks and intrathecal. The group selected a different pump for intrathecal administration (CADD Solis).
  - An intrathecal analgesia orderset for CPOE is in development.
  - Drafted a Peripheral Nerve Block policy (Nursing), which was subsequently recommended for approval by the Committee.
  - Developed a peripheral nerve block order set which is now active in CPOE.
  - Updated the Epidural/Intrathecal Management Policy (Nursing) to include intrathecal administration.
  - Reviewed epidural PCEA pump and drug library issues.
  - Colored tubing labels (intrathecal = neon green, peripheral nerve block = blue) were selected and added as items in Central Distribution.
  - The documentation forms for the epidural, intrathecal, IV-PCA, and peripheral nerve blocks were also updated and placed in Patient Works.
- 9) **Double-check Audit Review:** High-alert medications require an independent double-check by two nurses. Performance Improvement has been auditing this process and the Committee has been reviewing this data quarterly. Current double-check audits include: subcutaneous insulin, heparin, and chemotherapy – inpatient and outpatient. In the previous year, the Committee requested the addition of the chemotherapy audit.
- 10) **IV Pump Library Utilization:** Reports obtained from the “smart” IV pump medication libraries indicate the libraries are currently used for < 20% of infusions. The Committee is in the process of reviewing more detailed reports, as well as getting feedback from front line nursing staff in order to pinpoint steps we can take to increase utilization of this safety feature. The Committee is also reviewing the number of times the pumps are triggering the soft min/max dose limit warnings.
- 11) **Pediatric Code Medications Kit:** Following a request to assist in development of a pediatric code medication kit, the Committee became aware of oncology orders which designated code medications be kept at the bedside. The Committee facilitated a change in the order-set, removing the medications from the bedside. A “virtual” kit was developed that utilized the Pyxis storage and retrieval functions while maintain security and monitoring expiration dating.
- 12) **Review of Medication Variances:** The Committee began a collaborative review of all medication variances with a severity level greater than or equal to four. The Committee also has a quarterly schedule for review of the ISMP Quarterly Action Agenda. The Committee also receives monthly updates on medication shortages and provides direction for prevention of medication errors with alternative products.