Working at the Top of Your License: Modernizing Nursing Protocols with Evidence-Based Practice

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WHO ARE YOU?
Learning Objectives

• Explain the process for updating nursing protocols
• Use evidence-based practice to guide nursing protocol development
• Create a Nursing Practice Guideline
What does it mean to work at the top of your license?

2010- IOM Report- The Future of Nursing

#1 Recommendation: The RN should practice to the full extent of their education and training.

Spend time doing tasks you went to school to do!
DO the Nursing Process in College Health Setting!
How this project got started
Gap assessment

• Outdated policies and procedures
• Considering formal accreditation
• Risk management

• Open Access
Staffing resources

- More student visits
- Full schedules
- Maximize staff to work at the top of their licenses
  - Terrific RNs
  - Wealth of experience
  - RN visit system in place for immunizations and women’s health
New product line: Expanded Access
What is driving your protocol development?

- Service
- University vision, clinic mission, student expectations
- Scope of Practice
Definitions: Policy vs Procedure

Policy (def) Principles, rules, guidelines formulated or adopted by an organization to reach its long term goals. Typically published in form that is widely accessible. (business dictionary.com)

Procedure (def) Specific methods employed to express policies in action in day to day operations of the organization (business dictionary.com)
Protocols (def) Series of actions which may include medications that may be implemented to manage patient clinical status. Allows specific interventions to be decided by the (RN) based on the patient meeting outlined criteria. They lay out the why, where, when and by whom, but not the how. Includes alternatives/exceptions to prescriptive orders. Often a step by step algorithm (DHHS center for Medicare and Medicaid Services, 2008)
Standing Orders

Standing orders (def) Medical treatment orders generated by an authorized prescriber who identifies an action or medication that must be implemented or administered. Use of standing orders must be documented in patient chart and signed by authorized practitioner responsible for care of patient. Be careful to avoid setting up RNs to be routinely expected to make clinical decisions outside their scope of practice. (DHHS, 2008, Centers for Medicaid and Medicare)
DEVELOPING A NURSING PROTOCOL
Protocol Format

Definition and scope:
Subjective:
Objective/Nursing Assessment:
Nursing Diagnosis/Assessment:
Nursing Treatment:
Nursing Homecare (Patient education about self-care):
Prevention recommendations:
Resources and references:
Definition and Scope

Protocol
Parameters of condition
Who is affected by condition
Subjective

Patient reported findings
Past medical history
Family history

College health specific – type of student, major, living situation
Objective

Vital signs
Direct, measurable observations
Nursing Diagnosis (NANDA – North American Nursing Diagnosis Association)
Often knowledge deficit or advice diagnosis
Not a medical diagnosis
Nursing Interventions: Treatment

Concrete tasks:
Medications (over-the-counter)
Titers
Referrals
Follow-up scheduling
Hands on care (dressing change, suture removal, ear lavage, nebulizer treatment)
Nursing Interventions: Homecare

Home-going instructions:
Websites
Clinic handouts
Resource management: Counseling Service, Educational Support Services, Athletics/Recreation, housing, academic dean, security, Disability Resources, Title IX investigator, student advocate, spiritual support
Assessment of barriers/gaps in care specific to that visit:

- Accommodations
- Language barriers/cultural norms
- Money/finances/insurance limitations
- Academics
- General knowledge deficits
- Other: MH issues, home/school/social issues, substance use, physical limitations, etc
- Motivation to change
Resources and References

Should include 1-3 here
Highest quality available
Definition and scope: Chicken pox is a highly contagious viral infection caused by the varicella zoster virus. Primary infection results in chicken pox. Subsequent infections with VZV result in shingles. Chicken pox primarily infects young children and unvaccinated adolescents/adults. Though uncommon, vaccinated individuals can also develop chicken pox.

Subjective:
Determine history of current illness. Chicken pox generally has a brief prodromal period characterized by achiness, fever, decreased appetite, pharyngitis. Within 24 hours, a generalized vesicular rash develops. Check varicella immunization status of patient. If it is within 24 hours of onset of symptoms (primarily rash) patient should be started on anti-viral medication under the care of an MD/RN.

Objective/Nursing Assessment:
Clinical symptoms
Support systems in place (friend support, residence hall vs. off campus, family)

Nursing Diagnosis/Assessment:
Altered skin integrity
Fever

Nursing Treatment:
Transfer visit to MD/RN for anti-viral treatment, if appropriate
Supportive care
Initiate isolation procedures (if in housing, arrange isolation)
Implement Infectious disease exposure plan

Nursing Homecare (Patient education about self-care):
Medications: acetaminophen for fever - avoid aspirin (Reye syndrome risk) or NSAIDS
   Antihistamines
   Topicals- calamine lotion, colloidal oatmeal
Keep fingernails short, clean
Monitor for secondary skin infection, other complications of illness
Education re: meal plan while in isolation, importance of maintaining hydration
Contagious until all lesions have developed scabs
Must return to clinic for symptom check prior to return to class/general campus

Prevention recommendations:
Immunization- two doses of varicella vaccine at least 4 weeks apart prior to exposure

Resources and references:
Up to Date, 2016
cdc.gov
Keeping Protocols Up to Date

Review annually
Review following adverse event
Information Sources

UptoDate
Review articles
CDC guidelines and publications (can subscribe)
AHRQ
Professional societies
Continuing education events
Other considerations

- Patient population
- Clinic structure
- Location
- Space
- Hours of operation
- Staff credentials and experience
- Staff laws
- University policies
TITLE: Chicken Pox Treatment

Definition and scope: Chicken pox is a highly contagious viral infection caused by the varicella zoster virus. Primary infection results in chicken pox. Subsequent infections with VZV result in shingles. Chicken pox primarily infects young children and unvaccinated adolescents/adults. Though uncommon, vaccinated individuals can also develop chicken pox.

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Determine history of current illness. Chicken pox generally has a brief prodromal period characterized by achiness, fever, decreased appetite, pharyngitis. Within 24 hours, a generalized vesicular rash develops.
Check varicella immunization status of patient.
If it is within 24 hours of onset of symptoms (primarily rash) patient should be started on anti-viral medication under the care of an MD/RN.

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Resources and references:
Up to Date, 2016
cdc.gov
USING EVIDENCE-BASED PRACTICE
Evidence-Based Practice

Conscientious, explicit and judicious use of current best evidence, in conjunction with clinical judgement and patient values, to make clinical decisions for individual patient care. It is a process of integrating evidence into health care delivery.(Sackett et al., 1996)
EBP Process

Identify a clinical issue
Ask a searchable, answerable question
Search for and retrieve the best evidence related to your question
Critically appraise and synthesize the evidence
Develop and implement a specific practice change
Evaluate the implementation process and outcomes*
Identify a Clinical Issue

Knowledge Triggers

Problem triggers
Ask a searchable, answerable question
Search for Evidence: Databases

Cochrane Database of Systematic Reviews (CDSR)
Cochrane Health Technology Assessment (HTA)
National Guidelines Clearinghouse (NGC)
Professional Societies
Federal Agencies (Centers for Disease Control, Agency for Healthcare Research and Quality (AHRQ), Veterans Administration)
Institute for Healthcare Improvement (IHI)- bundles, not guidelines
Joanna Briggs Institute (JBI) best practice sheets for nursing, not guidelines
Cincinnati Children’s Hospital- specific to pediatrics
Web of Science
Search for Evidence

Is it applicable to your setting? Similar patient demographic, population?

Existing Clinical Practice Guidelines (CPG)
Critically Appraise and Synthesize the Evidence

**AGREE II TOOL** - [www.agreetrust.org](http://www.agreetrust.org)

- Scope and purpose of CPG - aim, specific health questions, target population
- Stakeholder Involvement - who developed/had input into CPG
- Rigour of Development - how was data synthesized? Sources used to develop guidelines
- Clarity of Presentation - language, structure, logical? Easy to follow?
- Applicability - barriers/facilitators to implementation
- Editorial Independence - bias, competing interest by authors or board?
How Do You Do It?
Develop and Implement Specific Practice Change

Get buy-in from stake-holders

SWOT analysis (Strengths-Weaknesses-Opportunities-Threats)

What do you already have in place?

Start small

Evaluate as you go
EBP Demonstration

https://www.guideline.gov/
Guideline Summary

Guideline Title

Allergic rhinitis.

Bibliographic Source(s)


Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: University of Michigan Health System. Allergic rhinitis. Ann Arbor (MI): University of Michigan Health System (UMHS); 2007 Oct. 12 p. [3 references]
Scope

Disease/Condition(s)
   Allergic rhinitis

Guideline Category
   Diagnosis
   Management
   Treatment

Clinical Specialty
   Allergy and Immunology
   Family Practice
   Geriatrics
   Internal Medicine
   Otolaryngology
   Pediatrics

Intended Users
   Advanced Practice Nurses
   Nurses
   Pharmacists
   Physician Assistants
   Physicians

Guideline Objective(s)
   To assist in the diagnosis and cost-effective treatment of allergic rhinitis

Target Population
   Adults and children with presumed or confirmed allergic rhinitis

Interventions and Practices Considered
   Diagnosis
      1. History and physical examination
      2. Symptom diary
      3. Trial of medication
      4. Allergy testing
3. Trial of medication
4. Allergy testing

**Therapy**

1. Avoidance of allergens
2. Over-the-counter (OTC) non-sedating antihistamine
3. Other medications:
   - Intranasal corticosteroids (prescription only)
   - Oral decongestants (OTC)
   - Leukotriene inhibitors (prescription only)
   - Intranasal cromolyn (OTC)
   - Intranasal antihistamines
   - Ocular preparations
4. Immunotherapy
5. Allergist/specialist referral
6. Special considerations for certain patient groups:
   - Pediatrics
   - Geriatrics
   - Severe asthmatics

**Major Outcomes Considered**

- Incidence, frequency, and severity of allergy symptoms
- Medication side effects
- Cost-effectiveness of treatment

**Methodology**

**Methods Used to Collect/Select the Evidence**

Searches of Electronic Databases

**Description of Methods Used to Collect/Select the Evidence**

The literature search for this update began with the results of the literature searches performed for the 2002 and 2007 versions of this guideline. Also referenced was the search performed for Allergic Rhinitis and its Impact on Asthma (ARIA) 2010 revision. Geneva: World Health Organization (WHO), which included literature through August 2007. A search for literature published since that time was performed. The search on Medline was conducted prospectively for literature published from 8/1/07 to 3/30/12 using the major keywords of: allergic rhinitis, human (adult and pediatric), English language, clinical guidelines, controlled trials and meta analyses, and cohort studies. Separate searches were performed for: history (inciting factors, seasonality, family history, severity & severity scoring), physical exam, signs, symptoms (nasal exam for changes in mucosa, conjunctival changes), laboratory (nasal smear for presence of eosinophils, skin testing, RAST), Diagnosis—other references, control triggers, corticosteroids (intra-nasal, ocular), antihistamines (intra-nasal, oral, ocular), leukotriene inhibitors/modulators, decongestants...
The search was conducted in components each keyed to a specific causal link in a formal problem structure (available upon request). The search was supplemented with recent clinical trials known to expert members of the panel. Negative trials were specifically sought. The search was a single cycle.

Number of Source Documents
Not stated

Methods Used to Assess the Quality and Strength of the Evidence
Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Level of Evidence
A. Randomized controlled trials
B. Controlled trials, no randomization
C. Observational trials
D. Opinion of expert panel

Methods Used to Analyze the Evidence
Systematic Review

Description of the Methods Used to Analyze the Evidence
Not stated

Methods Used to Formulate the Recommendations
Expert Consensus

Description of Methods Used to Formulate the Recommendations
Conclusions were based on prospective randomized clinical trials (RCTs) if available, to the exclusion of other data; if RCTs were not available, observational studies were admitted to consideration. If no such data were available for a given link in the problem formulation, expert opinion was used to estimate effect size.

Rating Scheme for the Strength of the Recommendations

Strength of Recommendation
I. Generally should be performed
II. May be reasonable to perform
III. Generally should not be performed
Cost Analysis

A formal cost analysis was not performed and published analyses were not reviewed.

Method of Guideline Validation

Internal Peer Review

Description of Method of Guideline Validation

Drafts of this guideline were reviewed in clinical conferences and by distribution for comment within departments and divisions of the University of Michigan Medical School to which the content is most relevant: Allergy, Family Medicine, General Internal Medicine, General Pediatrics, and Otolaryngology. The guideline was approved by the UM C. M. Mott Children Hospital's Pediatric Medical Surgical Joint Practice Committee and Executive Committee. The final version was endorsed by the Clinical Practice Committee of the University of Michigan Faculty Group Practice and the Executive Committee for Clinical Affairs of the University of Michigan Hospitals and Health Centers.

Recommendations

Major Recommendations

*Note from the University of Michigan Health System (UMHS) and the National Guideline Clearinghouse (NGC):* The following guidance was current as of October 2013. Because UMHS occasionally releases minor revisions to its guidance based on new information, users may wish to consult the [original guideline document](#) for the most current version.

*Note from NGC:* The following key points summarize the content of the guideline. Refer to the full text of the original guideline document for detailed information on each of the screening procedures.

The strength of recommendation (I-III) and levels of evidence (A-D) are defined at the end of the "Major Recommendations" field.

**Key Aspects & Recommendations**

**Diagnosis**

Allergic rhinitis is an antigen-mediated inflammation of the nasal mucosa that may extend into the paranasal sinuses. Diagnosis is usually made by history and examination ("itchy, runny sneezy, stuffy"). A symptom diary and a trial of medication may be helpful to confirm a diagnosis. Allergy testing is not commonly needed to make the diagnosis, but may be helpful for patients with multiple potential allergen sensitivities.

**Therapy**

The goal of therapy is to relieve symptoms.

1. **Avoidance** of allergens is the first step [IA]. (Refer to text in the original guideline document for details). If avoidance fails:
2. **An over-the-counter (OTC), non-sedating antihistamine** (loratadine [Claritin], cetirizine [Zyrtec], fexofenadine [Allegra])
Therapy

The goal of therapy is to relieve symptoms.

1. **Avoidance** of allergens is the first step [IA]. (Refer to text in the original guideline document for details). If avoidance fails:
2. An over-the-counter (OTC), non-sedating antihistamine (loratadine [Claritin], cetirizine [Zyrtec], fexofenadine [Allegra]) should be tried initially. They provide relief in most cases. They prevent and relieve nasal itching, sneezing, and rhinorrhea, and ocular symptoms, but tend to be less effective for nasal congestion [IA]. If symptoms persist consider the following options:
3. **Other medications:**
   - **Intranasal corticosteroids** (prescription only) are the most potent medications available for treating allergic rhinitis [IA]. They control itching, sneezing, rhinorrhea, and stuffiness in most patients, and may help ocular symptoms. They have a relatively good long-term safety profile. Generic intranasal corticosteroids for adults and children are: fluticasone (Flonase), triamcinolone acetonide (Nasacort AQ), and flunisolide (Nasarel).
   - **Oral decongestants** (OTC) decrease swelling of the nasal mucosa, which, in turn, alleviates nasal congestion [IA]. They can be combined with oral antihistamines or other agents. However, they are associated with appreciable side effects, especially in geriatric patients, and should only be considered when congestion is not controlled by other agents. They are contraindicated with monoamine oxidase inhibitors (MAOIs), in uncontrolled hypertension, and in severe coronary artery disease and benign prostatic hyperplasia (BPH).
   - **Leukotriene inhibitors** (prescription-only) are less effective than intranasal corticosteroids [IIIA]. Consider using for patients who cannot tolerate first line agents or have co-morbid asthma.
   - **Intranasal cromolyn** (OTC) is less effective than intranasal corticosteroids [IIIA]. Cromolyn is a good alternative for patients who are not candidates for corticosteroids. It is most effective when used regularly prior to the onset of allergic symptoms.
   - **Intranasal antihistamines** (azelastine), while effective in treating the nasal symptoms associated with seasonal and perennial rhinitis and nonallergic vasomotor rhinitis, offer no therapeutic benefit over conventional treatment and incur additional cost [IIIA].
   - **Ocular preparations** should be considered for patients with allergic conjunctivitis who are not adequately controlled with or cannot tolerate an oral antihistamine or high dose nasal steroids, which do provide some improvement in ocular symptoms [IIIA].

Referral

Appropriate criteria for referral may include identification of specific allergens through testing, intolerance to or failure of medical therapy, severe reactions, associated comorbid conditions, or desire for immunotherapy [ID].

Controversial Issues

**Medication vs. immunotherapy.** A formal cost-benefit analysis of medication therapy versus immunotherapy (allergy shots) has not been performed; however, patients with moderate to severe symptoms that continue year round (seasonal or perennial allergic rhinitis) may benefit most from immunotherapy [IID]. Allergen immunotherapy can be cost effective in children with asthma.

**Special Considerations.** Certain patient groups (pediatrics, geriatrics, and severe asthmatics) may pose diagnostic and therapeutic challenges. In pediatric patients, the use of oral antihistamines is often limited due to poor tolerance, and intranasal corticosteroids may not be well tolerated. In geriatric patients, the use of oral decongestants is often limited due to the risk of side effects, and intranasal corticosteroids may be preferred. In severe asthmatics, the use of intranasal antihistamines may be limited due to the risk of exacerbation of asthma.
Controversial Issues

Medication vs. immunotherapy. A formal cost-benefit analysis of medication therapy versus immunotherapy (allergy shots) has not been performed; however, patients with moderate to severe symptoms that continue year round (seasonal or perennial allergic rhinitis) may benefit most from immunotherapy [IID]. Allergen immunotherapy can be cost effective in children with asthma.

Special Considerations. Certain patient groups (pediatrics, geriatrics, and severe asthmatics) may pose diagnostic and therapeutic challenges.

Definitions:

Levels of Evidence

A. Randomized controlled trials
B. Controlled trials, no randomization
C. Observational trials
D. Opinion of expert panel

Strength of Recommendation

I. Generally should be performed
II. May be reasonable to perform
III. Generally should not be performed

Clinical Algorithm(s)

An algorithm titled "Treatment of Allergic Rhinitis" is provided in the original guideline document.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Conclusions were based on prospective randomized clinical trials (RCTs) if available, to the exclusion of other data; if RCTs were not available, observational studies were admitted to consideration. If no such data were available for a given link in the problem formulation, expert opinion was used to estimate effect size.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

- Accurate diagnosis and cost-effective treatment of allergic rhinitis
- Relief of symptoms of allergic rhinitis

Potential Harms
Potential Harms

- Oral decongestants (including combination products containing a decongestant) should be used with caution in patients with unstable hypertension, ischemic heart disease, glaucoma, prostatic hypertrophy, or diabetes mellitus.
- Geriatric patients may be more sensitive to the effects of decongestants.
- Nasal cromolyn is reserved for patients who are not well-controlled or do not tolerate oral antihistamines or intranasal steroids. The four times daily dosing can cause compliance problems.

Refer to Table 8 in the original guideline document for common or serious side effects associated with medical therapy for allergic rhinitis.

Contraindications

Contraindications

Oral decongestants are contraindicated with monoamine oxidase inhibitors (MAOIs), in uncontrolled hypertension, and in severe coronary artery disease and benign prostatic hyperplasia (BPH).

Qualifying Statements

Qualifying Statements

These guidelines should not be construed as including all proper methods of care or excluding other acceptable methods of care reasonably directed to obtaining the same results. The ultimate judgment regarding any specific clinical procedure or treatment must be made by the physician in light of the circumstances presented by the patient.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Clinical Algorithm
Patient Resources
Staff Training/Competency Material

For information about availability, see the Availability of Companion Documents and Patient Resources fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better
MAKING A PROTOCOL
Protocol writing

Definition and scope:
Subjective:
Objective/Nursing Assessment:
Nursing Diagnosis/Assessment:
Nursing Treatment:
Nursing Homecare (Patient education about self-care):
Prevention recommendations:
Resources and references:
Definition and scope

Allergic rhinitis (hay fever) is an antigen-mediated inflammation of the nasal mucosa that may extend into the sinuses. Diagnosis is usually made by history and examination ("itchy, runny sneezy, stuffy").
Subjective

Determine history of present symptoms. Allergic rhinitis generally has a seasonal pattern

Pattern of current symptoms- onset, what makes symptoms better/worse

Self- treatment

History of allergic rhinitis- personal or family

Appropriate criteria for referral to MD/NP for management may include identification of specific allergens through testing, intolerance to or failure of medical therapy, severe reactions, associated comorbid conditions, or desire for immunotherapy.
Objective/Nursing Assessment

Clinical symptoms (itchy, runny, sneezy, stuffy)
Examine HEENT, lungs, skin
Nursing Diagnosis/Assessment

Knowledge deficit actual or potential related to.....
Nursing Treatment

Schedule follow up visit with MD/NP for medication management, allergist referral, if appropriate
Nursing Homecare

Allergen avoidance:
• Limit time outdoors with high allergen counts
• Hypoallergenic bedding
• Avoid carpeting, drapes
• Frequent vacuuming/floor cleaning
• Avoid pets
• Rinse eyes after being outdoors, avoid using contact lenses

OTC medications:
• Intranasal corticosteroids
• Non-sedating antihistamine
• Decongestant
Nursing Prevention

Housing accommodations (A/C in residence halls)
Academic accommodations- refer student to ESS if interfering with mandatory course work
Patient expectations- generally long acting, slow acting medications, may take 7-10 days for full clinical effect. Start them prior to allergen exposure
Resources and References

National Guideline Clearinghouse, 2013
Up to Date
TITLE: Allergic Rhinitis

Definition and scope:
Allergic rhinitis (hay fever) is an antigen-mediated inflammation of the nasal mucosa that may extend into the sinuses. Diagnosis is usually made by history and examination ("itchy, runny sneezy, stuffy").

Subjective:
Determine history of present symptoms. Allergic rhinitis generally has a seasonal pattern
Pattern of current symptoms - onset, what makes symptoms better/worse

Self-treatment:
History of allergic rhinitis - personal or family

Appropriate criteria for referral to MD/NP for management may include identification of specific allergens through testing, intolerance to or failure of medical therapy, severe reactions, associated comorbid conditions, or desire for immunotherapy.

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Clinical symptoms (itchy, runny, sneezy, stuffy)
Examine HEENT, lungs, skin

Nursing Diagnosis/Assessment:
Knowledge deficit actual or potential related to.....

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Nursing Homecare (Patient education about self-care):
Allergen avoidance:  Limit time outdoors with high allergen counts
   Hypoallergenic bedding
   Avoid carpeting, drapes
   Frequent vacuuming/floor cleaning
   Avoid pets
   Rinse eyes after being outdoors, avoid using contact lenses

OTC medications:
   Intranasal corticosteroids
   Non-sedating antihistamine
   Decongestant

Nursing Prevention recommendations:
Housing accommodations (A/C in residence halls)
Academic accommodations - refer student to ESS if interfering with mandatory course work
Patient expectations - generally long acting, slow acting medications, may take 7-10 days for full clinical effect. Start them prior to allergen exposure.

Resources and References:
National Guidelines Clearinghouse, 2013
Up to Date
Take home messages

Good Planning
Good Product (strong evidence)
Good Communication
Good Organizational Buy-In/ readiness to adopt
Good Resources to Implement Change
Questions?

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