

	<b>Multiple Chemical Sensitivities – Care of Patients With</b>	
	<b>Applicability:</b> Acute Care	<b>Revised Date:</b> 09-Feb-2009
<b>Service:</b> Client Care	<b>Originating Date:</b> 29-Oct-2008	
<b>Section:</b> Patient/Resident/Client Safety		
<b>Approved by:</b> Clinical Practice Leader, AC Nursing	<b>Next Review Date:</b> 09-Feb-2011	
<b>Originator:</b> Acute Care Nursing		
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## Purpose

To outline the patient care responsibilities when caring for a patient experiencing multiple chemical sensitivities (MCS)

### 1.0 Background

MCS is an acquired chronic disorder characterized by recurrent symptoms occurring in response to low levels of exposure to multiple unrelated chemicals. The symptoms generally occur in one of four categories: central nervous system, circulatory, respiratory and mucous irritation or metabolic that would include enzymes, blood, kidneys, GI tract, etc. Patient with a history of maladaptive reactions to chemicals found in perfumes, pesticides, detergents, household cleaners, etc. may have or develop multiple chemical sensitivities. Approximately 75% of those affected are women, possibly due to endocrine disruption. People in their 30s and 40s are most strongly affected as well as children and others who are more susceptible to the effects of pesticides and products containing toxic chemicals. The population most strongly identified with this condition includes: industrial workers, teachers, nurses, sick building occupants and those living in chemically contaminated communities. Approximately 3% of Canadians have been diagnosed with environmental sensitivities.

### 2.0 Prior to Admission

Identify individuals at risk on admission in Emergency Department, Admitting or the Pre-admission Clinic and note this information in the patient's chart.

**Note:** Once functionality is available to enter alerts in the electronic record, this procedure will be updated to reflect that process.

### 3.0 On Admission

3.1 Assign the patient to a private room, with negative pressure, if available. Do not use a room that has been recently painted

- 3.2 Obtain Latex Allergy Kit and place in room
- 3.3 Remove sharps container and replace with a new one
- 3.4 Order a bottle of hydrogen peroxide from Stores (order # 3001529) to use as skin prep for IV initiations and phlebotomies
- 3.5 Obtain allergen free (MCS) linen from Laundry and change the linens on the bed
- 3.6 If patient requires oxygen, open tubing, mask or prongs package as far ahead of when needed as possible in order to “air it out”. Wipe the mask/prongs and tubing with hydrogen peroxide and flush the tubing with oxygen or medical air prior to applying to patient’s face. These actions help to dissipate the scent of the plastic.
- 3.7 A comprehensive assessment is required for patients who state they have MCS. The medical history may be extensive as MCS affects many systems.

**Note:** People with MCS are the experts related to their own needs and requirements around their MCS, so it is important to have the patient involved in the development of their careplan.

- 3.8 Carefully note environmental sensitivities, food and drug allergies and their reactions. Note how the patient copes with their MCS as it varies dependent on the actual sensitivities specific to that patient. Include what special equipment they use, their usual medications or remedies, alternatives measures or oxygen.
- 3.9 Place a red allergy band on patient; mark Multiple Chemical Sensitivity (MCS). Also follow standard practices for flagging the chart for allergies etc.
- 3.10 On diet order, indicate patient has a MCS
- 3.11 Place sign on patient’s door stating: “Check at the nurses station before entering patient’s room.”

### 3.12 Patient Care

#### 3.12.1 Observe patient for following symptoms

- Fatigue
- Memory loss
- Depression
- Nervousness
- Lack of motivation
- Visual problems
- Hearing problems
- Dizziness
- Sleep disorders
- Edema
- Disorientation
- Confusion
- Irritability
- Hoarseness
- Loss of coordination
- Loss of logic sequencing ability
- SOB
- Headache
- Chest pain
- Joint pain
- Digestive difficulties
- Sun or other rashes
- Cold or heat sensitivity
- Nausea
- Tingling or numbness of extremities
- Salivation (usually from pesticides)
- Sinusitis
- Pallor
- Anemia

Report to physician any signs and symptoms exhibited by patient

- 3.12.1 Consult a Clinical Dietitian for dietary needs. Retain patient's dietary requirements in the patient's medical record for future reference
- 3.12.2 Pharmacy maintains a MCS reactions kit in the Pharmacy Department at the RDRHC. If patient is admitted to another facility, contact Pharmacy and request the kit be sent to that site for the length of the patient's stay.
- 3.12.3 Allow patient to supply his/her own tolerated food products and dietary supplements
- 3.12.4 Encourage use of personal respirator and other protection methods while in health care facility.

#### **4.0 Patient Safety**

- 4.1 Reinforce all hospital employees and visitors to check with the patient's nurse prior to entering patient's room.
- 4.2 Maintain patient isolation from other patients and their visitors at all times
- 4.3 Transport patient with P95 mask (located in Latex Allergy Kit) or personal respirator
- 4.4 Staff caring for patient is to refrain from wearing perfumes, scented lotions, hair spray, scented shampoo, deodorants or other scented products and use only unscented soap to wash their hands. Staff should also be aware that the laundry soaps and softeners they use to wash their uniforms will effect the patient so should avoid using these when caring for this patient group
- 4.5 Apply hypoallergenic, non-latex gloves prior to entering the room
- 4.6 Instruct patient's family/visitors to not to bring plants or flowers to the patient's room
- 4.7 Restrict newspaper in patient's room
- 4.8 Use suggested alternate products as listed in Appendix 1, **if** the patient is able to tolerate these.

#### **5.0 Emergency Interventions**

- 5.1 If known, remove the offending object or person from patient's room
- 5.2 If necessary, remove patient from room to fresh air outside the building
- 5.3 Utilize charcoal and baking soda to absorb and remove odors from the room. Open windows if possible.
- 5.4 Refer to patient's personal emergency protocol for reducing and diluting chemical reactions (water, food, baking soda, tri-salts, etc.). Obtain MCS reactions kit from Pharmacy

5.5 Communicate and cooperate with the patient whenever possible as the patient generally knows what will help.

## **6.0 Patient Education**

6.1 Discuss with patient / family Multiple Chemical Sensitivity if newly diagnosed patient. Inform them there are Internet support groups available that they can make contact with

6.2 Reassure the patient with understanding of their chemically sensitive condition.

## **7.0 Documentation**

7.1 Document Multiple Chemical Sensitivity in the patient's medical record, on the cover of the chart, medication records and in the electronic system (once functionality available)

7.2 Document implementation / modification / discontinuation of protocols

7.3 Document vital signs and assessment findings on appropriate flow sheet

7.4 Document evaluative statement of the patient's response to interventions and lack of complications.

## **8.0 References**

8.1 Southwest General Health Center Multiple Chemical Sensitivity Protocol. Middleburg. OH. Downloaded from the WWW at [http://ieq.nibs.org/rooms/app\\_c.php?p=1](http://ieq.nibs.org/rooms/app_c.php?p=1) on August 10, 2007

8.2 Cooper, Carolyn RN. (2007). Multiple Chemical Sensitivity in the Clinical Setting. AJN Vol. 107, No. 3

8.3 Sears, Margaret E. (2007). The Medical Perspective on Environmental Sensitivities. Canadian Human Rights Commission

8.4 Canadian Multiple Chemical Sensitivities Support Group

**Suggested Alternate Products**

Instead of	Use
Alcohol prep pads	3% hydrogen peroxide order # 3001529 Povidone iodine
Cleaning products that contain bleach, ammonia or aerosols	Hydrogen peroxide based cleaners such as Virox® or Pecept® Vinegar and water or baking soda and water
Rubber oxygen masks	Plastic or the patient's own.
IV plastic cannula	Metal Butterfly needles Infusion wing set 19G x 3/4 x 12" order # 3002388 Infusion set wing 21G x 0.75 x 12" order # 3002389 Infusion set wing 23G x 0.75 x 12" order # 3006108
Adhesive tape	Paper Tape Tape surgical porous 2.5cm x 9m order # 3002208 Tape surgical porous 1.2cm x 9m order # 3002218
Plastic and Styrofoam containers	Glass dishes
Tap water	Bottled drinking water from glass bottles
Dextrose and Water (If corn intolerant)	Normal Saline Ringers Solution
Linens	Obtain allergen free (MCS) linen from Laundry