

## DST-REM-101 Eye Assessment: Adult

Nurses with Remote Nursing Certified Practice designation (RN(C)s) are able to manage the following eye conditions:

- Conjunctivitis
- Minor corneal abrasion

The following assessment must be completed and documented.

### ASSESSMENT

#### History of Present Illness and Review of System

##### General

The following characteristics of each symptom should be elicited and explored:

- Onset (sudden or gradual)
- Chronology
- Current situation (improving or deteriorating)
- Location
- Radiation
- Quality
- Timing (frequency, duration)
- Severity
- Precipitating and aggravating factors
- Relieving factors
- Associated symptoms
- Effects on daily activities
- Previous diagnosis of similar episodes
- Previous treatments
- Efficacy of previous treatments

#### Cardinal Signs and Symptoms

In addition to the general characteristics outlined above, additional characteristics of specific symptoms should be elicited, as follows:

##### Vision

- Recent changes in vision
- Vision loss including loss of peripheral vision
- Blurring
- Halos around lights
- Floaters
- Flashes of lights

##### Other Associated Symptoms

- Pain
- Headache
- Sensation of pressure behind eye
- Irritation

- Foreign-body sensation
- Photophobia
- Diplopia
- Lacrimation
- Itching
- Eye Discharge
- Ear pain
- Nasal discharge
- Sore throat
- Cough
- Nausea or vomiting
- Urethral, vaginal or rectal discharge
- Pain or inflammation of the joints

### **Medical History (General)**

- Medical conditions and surgeries
- Allergies (seasonal as well as medication)
- Medication currently used (prescription, oral contraceptives, over the counter)
- Herbal preparations, vitamins, minerals, supplements and traditional therapies
- Communicable diseases: herpes simplex /zoster

### **Medical History (Specific to eyes)**

- Eye diseases or injuries
- Eye surgery, including corrective
- Use of eyeglasses or contact lenses, corrective or cosmetic
- Change in type of contact lens or solution
- Concurrent infection of the upper respiratory tract
- Other infectious diseases (chicken pox, measles)
- Sexually Transmitted Infections (STIs)
- Immunocompromise
- Exposure to eye irritants (environmental or occupational)
- Current eye medications - homatropine, cylogyl, steroids
- Systemic inflammatory disease (Inflammatory Bowel Disease, Reiter's syndrome, Rheumatoid Arthritis (RA), Lupus)
- Diabetes mellitus
- Hypertension
- Chronic renal disease
- Bleeding disorders

### **Family History**

- Visual disorders (glaucoma, cataract, blindness, etc.)
- Systemic inflammatory disease (i.e., arthritis conditions, lupus)
- Diabetes mellitus
- Others with eye infections

### Personal and Social History (Specific to eyes)

- Occupational and recreational exposure to irritants
- Exposure to ultraviolet radiation from the sun
- Use of protective eyewear for sports and other activities
- Exposure to irritants (chemical, cigarette smoke, wood smoke)
- Housing and sanitation conditions
- Exposure to contagious organisms (e.g. conjunctivitis)
- Sexual activity

### PHYSICAL ASSESSMENT OF THE EYE

#### Vitals

- Temperature
- Pulse
- Respiration
- SpO<sub>2</sub>
- Blood pressure (BP)
- Pain

#### General

- Apparent state of health
- Appearance of comfort or distress
- Colour
- Nutritional status
- State of hydration
- Hygiene
- Match between appearance and stated age

#### Inspection

Test visual acuity, visual field

#### Inspection

- Bony Orbit: edema, lesions, bruising
- Lids and Lashes: ability to open and close, edema, erythema, crusting, eyelash position, tremors, foreign bodies, lesions. Evert upper lids as required.
- Lacrimal Apparatus: tearing, size
- Conjunctiva and Sclera: color, pattern of injection, discharge, edema, haemorrhage, pterygium, foreign body
- Cornea: clarity, abrasions or lacerations, arcus senilis (lipid deposition around cornea), foreign body. Fluorescein stain for corneal integrity.
- Pupil and Iris: color, size, shape, reactivity to light and accommodation
- Lens: transparency, opacities
- Fundi: red reflex, haemorrhage, optic disc, retinal vasculature
- Extraocular muscles: Extra ocular eye movements (EOEM), position and alignment of eyes (i.e., strabismus): use corneal light reflex test, cover-uncover test

### Palpation

Palpate the bony orbit, forehead, eyebrows, eyelids, lacrimal apparatus and pre-auricular lymph nodes for tenderness, swelling or masses

**Do not palpate globe if rupture injury is suspected or if the client has undergone recent eye surgery**

### Associated Systems

- An ENT examination, including the lymph nodes of the head and neck, should also be performed if there are symptoms of a systemic condition, such as viral URTI or an STI, (e.g. gonorrhoea) is suspected
- Pre-auricular adenopathy might indicate chlamydial, viral or invasive bacterial infection of the eye (e.g., gonorrhoea)

### Abdomen

Assess liver for tenderness and enlargement if eye symptoms are associated with symptoms of an STI.

### Genitourinary System and Rectal Area

Assess for urethral, cervical or vaginal discharge if eye symptoms are associated with symptoms of an STI.

### Musculoskeletal System and Extremities

Examine the joints to assess for warmth, redness, pain or swelling.

## SYMPTOMS REQUIRING URGENT REFERRAL

The first step is to differentiate major or serious causes of red eye from minor causes.

The following signs and symptoms require urgent referral to a physician or nurse practitioner:

- Unilateral or bilateral eye pain
- Ocular pain
- Ocular injury of any kind
- Severe photophobia of unknown cause
- Persistent blurring of vision
- Recent onset of visual disturbances – light flashes, floaters (recent onset), halos, dimming, visual distortion, double vision, abnormal colour perception or loss of visual acuity.
- Visual field loss
- Reduced ocular movement
- Exophthalmos (proptosis)
- Ciliary flush
- Scleral icterus
- Hyphema
- Irregular cornea (epithelial defect or opacity, irregular corneal reflection of light)
- Non-reactive pupil
- Treatment failure after 3 days
- Worsening symptoms
- Compromised host (e.g., immuno-suppressed client)
- Signs of preseptal or orbital cellulitis
- Symptoms in conjunction with a communicable disease i.e. chickenpox
- Finger like (dendritic) projections noted on fluorescein stain (herpetic)

## **DIAGNOSTIC TESTS**

The RN(C) may consider the following diagnostic tests in the examination of the eye to support clinical decision-making:

- Swab drainage for Culture and Sensitivity (C&S) only if there is no resolution of symptoms after an empiric course of treatment.

## **ADDITIONAL TESTING**

Apply fluorescein stain to test for corneal integrity if there is a possibility that a corneal abrasion has occurred.

## REFERENCES

More recent editions of any of the items in the Reference List may have been published since this DST was published. If you have a newer version, please use it.

American Academy of Ophthalmology. (2014). [Policy statement: Guidelines for appropriate referral of persons with possible eye diseases or injury](#).

American Optometric Association. (2017). [Comprehensive eye and vision examination](#). *American Optometric Association*.

Ball, J. W., Dains, J. E., Flynn, J. A., Solomon, B. S., & Stewart, R. W. (Eds.). (2015). *Seidel's guide to physical examination* (8th ed.). St. Louis, MO: Elsevier.

Boyd, K. (2017). [Cataract diagnosis](#). *American Academy of Ophthalmology*.

Boyd, K. (2017). [Glaucoma](#). *American Academy of Ophthalmology*.

Boyd, K. (2016). [What you should know about swimming and your eyes](#). *American Academy of Ophthalmology*. doi:10.1186/ar96

Canadian Association of Optometrists. (2017). [What is a comprehensive eye exam?](#) *Canadian Association of Optometrists*.

Cleary, G., Nischal, K. K., & Jones, C. a. (2006). Penetrating orbital trauma by stiletto causing complex cranial neuropathies. *Emergency medicine journal: EMJ*, 23(4), e28.

Dains, J. E., Baumann, L. C., & Scheibel, P. (2012). *Advanced health assessment and clinical diagnosis in primary care* (4th ed.). St. Louis, MO: Elsevier Mosby.

Estes, M. E. Z. (2014). *Health assessment and physical examination* (5th ed.). Clifton Park, NY: Cengage Learning.

Eye Physicians & Surgeons of Ontario. (2017). [Vision Safety](#). *Canadian Ophthalmological Society*.

Jacobs, D. S. (2014). [Corneal abrasions and corneal foreign bodies: Clinical manifestations and diagnosis](#). UpToDate.

Porter, R. S., & Kaplan, J. L. (Eds.). (2011). Approach to the ophthalmologic patient. In *The Merck Manual* (19th ed.). Whitehouse Station, NJ: Merck Sharpe & Dome Corporation.

Stephen, T. C., Skillen, D. L., Day, R. A., & Bickley L. S. (2010). *Canadian Bates' guide to health assessment for nurses*. Philadelphia, PA: Lippincott, Williams & Wilkins.

Waldo, M. H. (Ed.). (2011). *Ophthalmic procedures in the office and clinic* (3rd ed.). San Francisco, CA: American Society of Ophthalmic Registered Nurses.

Zoric, L. & Stojcic, M. (2013). The influence of ultraviolet radiation on eye. *Primary Health Care* 3: 133. doi:10.4172/2167-1079.1000133