

DST Revision Summary: Eyes (DST 200-202)

Background

The following document summarizes the initial evidence review and DST revisions for suite **Eyes** (DST 200, 201, and 202) as outlined in the NNPBC DST stewardship plan. The evidence reviews and syntheses are completed once per 3-year life cycle for each DST. NNPBC Professional Practice is responsible for completing these reviews to inform content revisions for DSTs. Each suite consists of one assessment and diagnostic guideline and the corresponding care and treatment plans for the disease, disorders, and conditions that Certified Practice RNs (RN(C)s) are authorized to diagnose and treat for that system.

The NNPBC evidence review team, which includes an RN-certified practice Consultant, Manager of Practice, Education, and research, and Lead of Continuing Education and Professional Development, completed the initial revisions for suite Eyes. Following the integration of revision recommendations, the Subject Matter Expert Advisory Group will review DSTs as outlined in the DST stewardship plan.

Review of References

Before completing the initial evidence review, citations for each DST were evaluated to ensure that references were current, evidence-informed and relevant to the particular DST suite under review. The process of reviewing the citations included updating any broken links to web pages, updating to the latest edition of textbooks, searching for primary literature that was more current and evidence-informed, and removing citations that required membership to an organization that an RN(c) would not have access to.

For example, several references for suite **Eyes** came from the American Academy of Ophthalmology or the Canadian Pharmacists Association, both requiring registration in those organizations to access clinical resources. Another challenge from the initial evaluation of the references was the lack of in-text citations throughout the DSTs. The reviewer could not corroborate the reference to the content within the DSTs, making it difficult to ensure that the content within the DSTs was current and evidence-informed.

Following a review of the citations for suite **Eyes**, it was recommended that a hierarchy of literature be created to guide decisions around the use of literature to inform DSTs, in conjunction with the feedback from the RN(c) Practice Consultant and Subject Matter Expert Advisory Group.

Literature Hierarchy

UpToDate was selected as the primary evidence source to inform the DST revisions. UpToDate is a widely used clinical resource, accessible to major health system employers such as regional health authorities and community-based primary care clinics. It also allows users to access LexiDrug, a comprehensive drug guide that provides life-span considerations. Information regarding authorship, their review processes, references, and article revision dates are also easily accessible, ensuring high-quality evidence to inform DST revisions.

Following consultation with PSIs, the review team selected the textbook *Seidel's Guide to Physical Examination: An Interprofessional Approach* (2023; 10th ed.) to augment evidence found via UpToDate. This textbook is the primary source used throughout the Remote Practice and RN First Call certified practice curriculum, enabling consistency and congruency of content revisions with certified practice education. UpToDate sources were cross-referenced with the textbook to ensure comprehensiveness in DST revisions.

Lastly, peer-reviewed primary literature was accessed to validate any unclear or vague content in existing DSTs. Open-access primary literature was prioritized to ensure RN(c) could access the sources that informed the DST.

This evidence hierarchy enabled relevant content revisions that aim to maximize clinical utility. Further, using a credible, evidence-based source (Up-to-Date) and a source consistent with certified practice education (*Seidel's Guide*) facilitated content changes that align with both practice and education. Lastly, developing this evidence hierarchy will support future DST revisions, making subsequent reviews more streamlined, methodical, and consistent.

Revision Summary

Changes to DSTs occurred in one of three ways: removing or relocating content, changing and revising existing content to reflect recent evidence and structural or formatting changes. A high-level summary of each DST for the **Eye** suite is presented below. The following summary is not an exhaustive list of document changes. Rather, it is a high-level summary, providing contextual considerations related to key changes during phase 1 of revisions.

Assessment and Diagnostic Guideline: Eyes (DST 200)

Defining Consultation and Referral

Definitions of *consultation* and *referral* were added to all Assessment and Diagnostic Guidelines to assist with conceptual clarity. The following **Note** was added to the start of the document:

Note: A *consultation* refers to the RN(C) collaborating with members of the care team, such as a physician, nurse practitioner, or pharmacist, to support decision-making processes related to the diagnosis, treatment and management of the diseases, disorders, and conditions that the RN(C) are authorized to diagnose, treat and manage. A *referral* is when an RN(C) refers a patient to a medical care provider for further treatment, care or management. This occurs when patients are presenting with symptoms outside of what is provided in this document, including symptoms that require urgent referral.

Content Removal or Relocation

Following consultation with PSIs, two primary sections of DST 200 were removed or re-located. This decision was made due to the inability to substantiate specific content, inconsistency within the document, and incongruity with the intended purpose of the document. Assessment and diagnostic guidelines intend to support RN(c) practice as it relates to assessing and diagnosing the disease, disorders and conditions within the RN(C) scope of practice. Therefore, content not directly related to diagnosing and managing *Corneal Abrasions* and *Conjunctivitis* was moved to DST 100 (Assessment and Diagnostic Guideline: General).

Examples of content changes include:

- **Symptoms requiring urgent referral:** The list of symptoms requiring urgent referral was removed from the document and replaced with a disclaimer regarding identifying a minor from a major injury and staying within the RN(c) scope of practice.
 - This change was made due to conflicting information in the list of symptoms with key assessment indicators for eye conditions. In addition, the list itself could not be substantiated due to a lack of clarity regarding the framework used to develop the list of symptoms.
- **General Appearance and vital signs** were moved to DST 100.
 - This change was made to align documents, as general appearance and vital signs are not specific to eye conditions, disease or disorders and is an expected competency of RN practice.
- **Physical Assessment – Eyes** were moved to DST 100.
 - This change was made to align with the purpose of the document. This section provides assessment information of the eyes that is not specific to diagnosing *Corneal Abrasion* (DST 201) and *Conjunctivitis* (DST 202), but rather supports RN(c) in their clinical reasoning. As a result, this information was moved into DST 100, which exists as a supportive resource for RN(c).

Assessment and Diagnostic Guidelines will now contain specific guidance on physical examinations and diagnostic tests related to conditions that can be managed, treated, and/or diagnosed within the Certified Practice framework.

Content Change

Content related to Potential causes, History, and Key Physical Assessment of *Corneal abrasions* (DST 201) and *Conjunctivitis* (DST 202) was updated with the most recent available literature. Diagnostic tests were also updated. All content in the document is now cited in the text with an appropriate, evidence-based source, as noted above.

Examples of content changes include:



- **Associated systems:** Content was changed to direct the RN(c) to the appropriate DST to support comprehensive assessments if the RN(C) believes the eye conditions are associated with systemic conditions such as an upper respiratory tract or sexually transmitted infection.
- **History:** Now includes more detailed information regarding improper contact lens use due to the risk of corneal abrasions and conjunctivitis; treatment will also differ for lens wearers.
- **Potential causes:** Content was expanded with more detail added.
 - For example, Allergic conjunctivitis was expanded to include Acute, Seasonal, Perennial as assessment/diagnosis will vary depending on the allergen.
- **Key Physical Assessment Findings:** Content is now more specific to assessing for the presence of *Corneal Abrasions* (DST 201) and *Conjunctivitis* (DST 202)
- Statements that could not be substantiated were removed or changed.
 - For example, for viral conjunctivitis, the statement “viral pathogens cause up to 80% of all cases of active conjunctivitis” was not found in the literature and was removed, and a statement in the Conjunctivitis care and treatment plan was added: “Age is an important differential indicator, with 71% of conjunctivitis in children being bacterial, and 78% of cases in adults being viral.”¹

Structural Change

- The document contains Level 1 – level 4 headings to facilitate organization.
 - Green – Level 1
 - Orange – Level 2
 - Black – Level 3
 - Black Italics – Level 4
- The visual algorithm on page one was changed to reflect content revisions.
- Headings were changed to become more specific.
 - For example, “bacterial infection” related to Conjunctivitis was changed to “Bacterial Conjunctivitis”
- Appendices were updated with the most up-to-date evidence that aligned with sources used in-text. Appendices also include appropriate citations.

Care and Treatment Plan: Corneal Abrasion (DST 201) and Conjunctivitis (DST 202)

Content Change

Primary revisions focused on content related to pharmacological and non-pharmacological interventions, consultation and/or referral, potential complications, and discharge information.

Examples of content changes include:

- **Non-pharmacological Interventions:** Interventions such as darkened room/no rubbing eyes to enhance client comfort while awaiting assessment were added.
- **Pharmacologic Interventions:** Treatment regimes were updated and separated based on the use of contact lenses to be more comprehensive, specific, and in alignment with recommendations made in the literature. Updated information regarding the use of topical anesthetics, steroids, and tetanus prophylaxis per current best-practice guidelines.
- **Pediatric Considerations:** Content was reviewed and updated to align with current best practice guidelines.
 - For example, information related to common caregiver requests regarding childcare and school treatment requirements was enhanced for clarity.
- **Potential Complications:** Complications were changed to the most frequently occurring with a note to que the RN(c) that the list provided is not exhaustive.

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- Additional headings related to more specific information were added.
 - “Bacterial conjunctivitis” had subheadings related to contact and non-contact lens use.
- Language around pregnancy and housing situations updated to be more inclusive of gender-diverse and unhoused clients

Conclusion

Initial revisions for DST 200-202 were informed by an evidence hierarchy and consultations with post-secondary representatives. Primary changes related to the removal of content or relocation for the assessment and diagnostic guideline, as well as the revision of content to facilitate increased clarity and detail. Lastly, formatting and structural changes were made to facilitate organization across all three documents.