

# High-Level Accessibility Evaluation (WCAG 2.1)

Ovid Medline

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**Prepared for:**

BTAA-Library Accessibility Alliance

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## SUMMARY

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This report reflects the findings of a high-level assessment of the Ovid Medline platform for its conformance with the W3C Web Content Accessibility Guidelines version 2.1 (WCAG 2.1).

There are very few WCAG 2.1 compliance issues with Ovid Medline and they are very minor overall with the most pressing issue being with ARIA implementation and a few color issues. Below are the most critical issues to address to improve system compliance.

### Top Findings

1. **Perception:** The main problem with the accessibility is the improper use of ARIA and semantic HTML elements, particularly in the navigation. There are missing roles, roles that are not contained by proper parents, and HTML elements that are improperly nested. These can cause significant issues with screen readers and keyboard navigation.
2. **Compatibility:** Another major issue is compatibility, seemingly caused by ARIA labels and several instances of nested controls across the site. This will cause issues with screen readers and keyboard navigation. Please refer to the [WAI-ARIA Authoring Best Practices Guide](#) for examples of proper aria implementation across a variety of use cases.
3. **Color:** There are a few minor color issues that were identified. There are some links that are only identifiable using color that do not meet the minimum 4.5:1 contrast ratio and there should be an additional way of identifying the links even without color, such as, underlining and making sure they meet 4.5:1 contrast with the background and 3:1 contrast with surrounding text.

### Best Practices

- ◆ Form elements should have a visible label.
- ◆ All page content should be contained by landmarks.
- ◆ ARIA role should be appropriate for the element.
- ◆ Heading levels should only increase by one.

## ACCESSIBILITY FINDINGS

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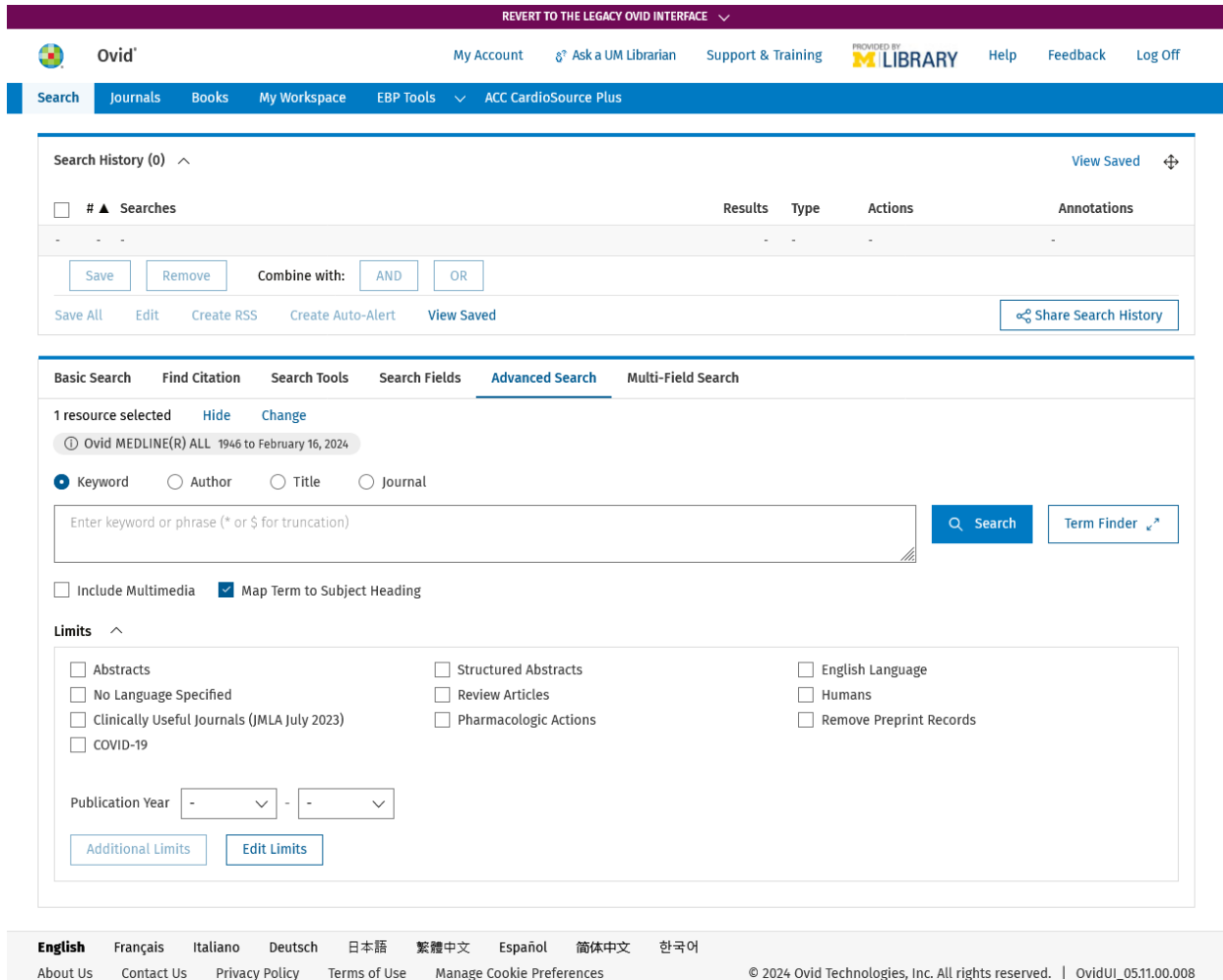
This report was conducted against the Ovid MedlinePlatform and covers a selection of pages and features that were to be tested as a representative sample of the database's conformance to the WCAG 2.1 AA standards.

The resource was reviewed using a combination of manual and automatic review tools and assistive technologies, including the WAVE Accessibility Assessment tool, Axe Accessibility Assessment tool, WCAG Color Contrast Checker, and NVDA screen reader. PDF content was tested against Section 508 requirements using Adobe Acrobat's accessibility tools and manual analysis. All problems identified by automatic tools were verified manually. This evaluation was performed using Firefox on Windows 11.

Below are the errors revealed during the accessibility evaluation of the Ovid Medline platform. Each result shows a summary of accessibility issues and the reason it was flagged. Screenshots are included.

# 1. Initial Interface

**Test Case:** After choosing both Ovid Medline(R) resources, test the initial interface/landing page to ensure menus, sub-menus, search box, images, icons, etc. are accessible. <https://ovidsp-dc2-ovid-com.proxy.lib.umich.edu/ovid-new-a/ovidweb.cgi>



**SC 1.3.1:** Certain ARIA roles must contain particular children.

## Location(s):

- `<ul class="top" role="menu">`

## Reason flagged:

- Element has children which are not allowed: `li[aria-current]`, `li[tabindex]`
- Element uses `aria-busy="true"` while showing a loader

**SC 1.3.1:** Certain ARIA roles must be contained by particular parents.

**Location (s):**

- `<li class="header-lists" role="menuitem">`

**Reason flagged:**

- Required ARIA parents role not present: menu, menubar, group

**SC 1.3.1:** `<ul>` and `<ol>` must only directly contain `<li>`, `<script>`, or `<template>` elements.

**Location (s):**

- `<ul class="header-list" id="headerList">`

**Reason flagged:**

- List element has direct children that are not allowed: `[role=menuitem]`

**SC 1.3.1:** `<li>` elements must be contained in a `<ul>` or `<ol>`.

**Location(s):**

- `<li aria-current="page" class="current search"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&C=_main&tab=search&Main+Search+Page=1" class="tlink">Search</a></li>`
- `<li class="journals"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&tab=journals&C=yrovft&Jump+to+Browse=yrovft&New+Database=S.dbListAll%7cSingle%7c26" class="tlink">Journals</a></li>`
- `<li class="books"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&tab=books&C=books&Jump+to+Browse=books&New+Database=S.dbListAll%7cSingle%7c3" class="tlink">Books</a></li>`
- `<li class="workspace"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&C=_main&tab=workspace.projects&Projects+Main+Page=1" class="tlink">My Workspace</a></li>`
- `<li class="jbi">`
- `<li class="remote"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&New+Database=S.dbListAll%7cSingle%7c6&C=_main&pccodes=accsp" class="tlink">ACC CardioSource Plus</a></li>`

**Reason flagged:**

- List item does not have a `<ul>`, `<ol>` parent element without a role, or a role="list"

**SC 4.1.2:** ARIA attributes must conform to valid names.

**Location(s):**

- `<div class="msp-ovidclassic-box clearfix" id="ovidclassic" role="tabpanel" aria-labeledby="ovidclassic-tab">`

**Reason flagged:**

- Invalid ARIA attribute name: aria-labeledby

**SC 4.1.2:** Interactive controls must not be nested.

**Location(s):**

- `<li role="tab" tabindex="-1" id="easy-tab" aria-selected="false"><a class="tlink mode-button" href="ovidweb.cgi?S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&Display+Mode=easy" data-ual-handler--211366781="true">Basic Search</a></li>`
- `<li role="tab" tabindex="-1" id="findcite-tab" aria-selected="false"><a class="tlink mode-button" href="ovidweb.cgi?S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&Display+Mode=findcite" data-ual-handler--304534413="true">Find Citation</a></li>`
- `<li role="tab" tabindex="-1" id="subjsrch-tab" aria-selected="false"><a class="tlink mode-button" href="ovidweb.cgi?S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&Display+Mode=subjsrch" data-ual-handler--925654691="true">Search Tools</a></li>`
- `<li role="tab" tabindex="-1" id="fields-tab" aria-selected="false"><a class="tlink mode-button" href="ovidweb.cgi?S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&Display+Mode=fields" data-ual-handler--178063802="true">Search Fields</a></li>`
- `<li role="tab" tabindex="-1" id="multifield-tab" aria-selected="false"><a class="tlink mode-button" href="ovidweb.cgi?S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&Display+Mode=multifield" data-ual-handler--1463215170="true">Multi-Field Search</a></li>`

**Reason flagged:**

- Element has focusable descendants

## 2. Search Results

**Test Case:** From the initial landing page, conduct a basic search for: "Acetaminophen." Test search results page, including filters/refine search. Under "Limits", select "English language." Under "Filter By", Sort by "Past 3 years."

The screenshot shows the Ovid Medline search results page. At the top, there's a navigation bar with 'Ovid' logo and links for 'My Account', 'Ask a UM Librarian', 'Support & Training', 'LIBRARY', 'Help', 'Feedback', and 'Log Off'. Below that, there's a search bar with 'Search History (4)' and 'View Saved' options. The search results are displayed in a list format. The first result is 'Acetaminophen for the patent ductus arteriosus: has safety been adequately demonstrated? [Review]' with a 5-star rating. The second result is 'Comparing the efficacy of intravenous morphine versus ibuprofen or the combination of ibuprofen and acetaminophen in patients with closed limb fractures: a randomized clinical trial.' also with a 5-star rating. The page includes various filters and options for refining the search results.

**SC 1.3.1:** Certain ARIA roles must contain particular children.

**Location(s):**

- `<ul class="top" role="menu">`

**Reason flagged:**

- Element has children which are not allowed: `li[aria-current]`, `li[tabindex]`
- Element uses `aria-busy="true"` while showing a loader

**SC 1.3.1:** Certain ARIA roles must be contained by particular parents.

**Location(s):**

- `<li class="header-lists" role="menuitem">`



**Reason flagged:**

- Required ARIA parents role not present: menu, menubar, group

**SC 1.3.1:** <ul> and <ol> must only directly contain <li>, <script>, or <template> elements.

**Location(s):**

- <ul class="header-list" id="headerList">
- <ul id="filterby-filters">

**Reason flagged:**

- List element has direct children that are not allowed: [role=menuitem]
- List element has direct children that are not allowed: a

**SC 1.3.1:** <li> elements must be contained in a <ul> or <ol>.

**Location(s):**

- <li aria-current="page" class="current search"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&C=\_main&tab=search&Main+Search+Page=1" class="tlink">Search</a></li>
- <li class="journals"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&tab=journals&C=yrovft&Jump+to+Browse=yrovft&New+Database=S.dbListAll%7cSingle%7c26" class="tlink">Journals</a></li>
- <li class="books"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&tab=books&C=books&Jump+to+Browse=books&New+Database=S.dbListAll%7cSingle%7c3" class="tlink">Books</a></li>
- <li class="workspace"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&C=\_main&tab=workspace.projects&Projects+Main+Page=1" class="tlink">My Workspace</a></li>
- <li class="jbi">
- <li class="remote"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&New+Database=S.dbListAll%7cSingle%7c6&C=\_main&pccodes=accsp" class="tlink">ACC CardioSource Plus</a></li>

**Reason flagged:**

- List item does not have a <ul>, <ol> parent element without a role, or a role="list"

**SC 1.4.3:** Elements must meet minimum color contrast ratio thresholds.

**Location(s):**

- `<a class="tlink view_selected_link tlinkdisable" role="button" title="Add selected to Search History" href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&View+Selected+Results=1" tabindex="-1" aria-hidden="true"><span class="wk-icon-plus-circle"></span>&nbsp;Keep Selected</a>`
- `<a class="tlink view_selected_link tlinkdisable" role="button" title="Add selected to Search History" href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&View+Selected+Results=1" tabindex="-1" aria-hidden="true"><span class="wk-icon-plus-circle"></span>&nbsp;Keep Selected</a>`

**Reason flagged:**

- Element has insufficient color contrast of 2.4 (foreground color: #80adc9, background color: #ffffff, font size: 10.5pt (14px), font weight: normal). Expected contrast ratio of 4.5:1

**SC 4.1.2:** Elements must only use supported ARIA attributes.

**Location(s):**

- `<div class="ovid-vertical-widget ui-widget ui-widget-content ui-helper-clearfix ovid-widget ovid-widget-search_information" id="search_information" role="application" aria-selected="false" draggable="true" tabindex="0" aria-labelledby="search_information-instruction" onkeydown="dragElement(event)" aria-grabbed="false" aria-dropeffect="move">`
- `<div class="ovid-vertical-widget ui-widget ui-widget-content ui-helper-clearfix ovid-widget ovid-widget-filter_by" id="filter_by" role="application" aria-selected="false" draggable="true" tabindex="0" aria-labelledby="filter_by-instruction" onkeydown="dragElement(event)" aria-grabbed="false" aria-dropeffect="move">`
- `<span class="filters-inactive browse-journal-subject-selected" aria-selected="true">All Stars</span>`
- `<div class="ovid-vertical-widget ui-widget ui-widget-content ui-helper-clearfix ovid-widget ovid-widget-my_projects" id="my_projects" role="application" aria-selected="false" draggable="true" tabindex="0" aria-labelledby="my_projects-instruction" onkeydown="dragElement(event)" aria-grabbed="false" aria-dropeffect="move">`
- `<div class="ovid-vertical-widget ui-widget ui-widget-content ui-helper-clearfix ovid-widget ovid-widget-JBI_Tools_Widgets" id="JBI_Tools_Widgets" role="application" aria-selected="false" draggable="true" tabindex="0" aria-labelledby="JBI_Tools_Widgets-instruction" onkeydown="dragElement(event)" aria-grabbed="false" aria-dropeffect="move">`

**Reason flagged:**

- ARIA attribute is not allowed: `aria-selected="false"`

**SC 4.1.2:** Elements must only use permitted ARIA attributes.

**Location(s):**

- `<span class="filter-chevron-icon" aria-label="Specific Year Range" tabindex="-1"></span>`

**Reason flagged:**

- aria-label attribute cannot be used on a span with no valid role attribute.

**SC 4.1.2:** ARIA attributes must conform to valid names.

**Location(s):**

- `<div class="msp-ovidclassic-box clearfix" id="ovidclassic" role="tabpanel" aria-labeledby="ovidclassic-tab">`
- `<ahref="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&RT+Widget+Options=RT" role="button" tabindex="0" aria-labeledby="options-label" class="wk-custom-text-button" data-ual-handler--1622985963="true">`

**Reason flagged:**

- Invalid ARIA attribute name: aria-labeledby

**SC 4.1.2:** Interactive controls must not be nested.

**Location(s):**

- `<li role="tab" tabindex="-1" id="easy-tab" aria-selected="false"><a class="tlink mode-button" href="ovidweb.cgi?S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&Display+Mode=easy" data-ual-handler--211366781="true">Basic Search</a></li>`
- `<li role="tab" tabindex="-1" id="findcite-tab" aria-selected="false"><a class="tlink mode-button" href="ovidweb.cgi?S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&Display+Mode=findcite" data-ual-handler--304534413="true">Find Citation</a></li>`
- `<li role="tab" tabindex="-1" id="subjsrch-tab" aria-selected="false"><a class="tlink mode-button" href="ovidweb.cgi?S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&Display+Mode=subjsrch" data-ual-handler--925654691="true">Search Tools</a></li>`
- `<li role="tab" tabindex="-1" id="fields-tab" aria-selected="false"><a class="tlink mode-button" href="ovidweb.cgi?S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&Display+Mode=fields" data-ual-handler--178063802="true">Search Fields</a></li>`
- `<li role="tab" tabindex="-1" id="multifield-tab" aria-selected="false"><a class="tlink mode-button" href="ovidweb.cgi?S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&Display+Mode=multifield" data-ual-handler--1463215170="true">Multi-Field Search</a></li>`

**Reason flagged:**

- Element has focusable descendants

### 3. Individual Results

**Test Case:** Test individual search result landing page & test actual document (PDF).

The screenshot shows the Ovid Medline search results page for a specific article. The article title is "Acetaminophen for the patent ductus arteriosus: has safety been adequately demonstrated?". The authors listed are Wright, Clyde J.; McCulley, David J.; Mitra, Souvik; Jensen, Erik A. The abstract states: "Patent ductus arteriosus (PDA) is the most common cardiovascular condition diagnosed in premature infants. Acetaminophen was first proposed as a potential treatment for PDA in 2011. Since that time acetaminophen use among extremely preterm neonates has increased substantially. The limited available data demonstrate that acetaminophen reduces PDA without evident hepatotoxicity. These findings have led some to suggest that acetaminophen is a safe and effective therapy for PDA closure. However, the lack of apparent hepatotoxicity is predictable. Acetaminophen induced cellular injury is due to CYP2E1 derived metabolites; and hepatocyte CYP2E1 expression is low in the fetal and neonatal period. Here, we review preclinical and clinical data that support the hypothesis that the lung, which expresses high levels of CYP2E1 during fetal and early postnatal development, may be particularly susceptible to acetaminophen induced toxicity. Despite these emerging data, the true potential pulmonary risks and benefits of acetaminophen for PDA closure are largely unknown. The available clinical studies in are marked by significant weaknesses including low sample sizes and minimal evaluation of extremely preterm infants."

**SC 1.3.1:** Certain ARIA roles must contain particular children.

**Location(s):**

- <ul class="top" role="menu">

**Reason flagged:**

- Element has children which are not allowed: li[aria-current], li[tabindex]
- Element uses aria-busy="true" while showing a loader

**SC 1.3.1:** Certain ARIA roles must be contained by particular parents.

**Location(s):**

- `<li class="header-lists" role="menuitem">`

**Reason flagged:**

- Required ARIA parents role not present: menu, menubar, group

**SC 1.3.1:** `<ul>` and `<ol>` must only directly contain `<li>`, `<script>`, or `<template>` elements.

**Location(s):**

- `<ul class="header-list" id="headerList">`

**Reason flagged:**

- List element has direct children that are not allowed: `[role=menuitem]`

**SC 1.3.1:** `<li>` elements must be contained in a `<ul>` or `<ol>`.

**Location(s):**

- `<li aria-current="page" class="current search"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&C=_main&tab=search&Main+Search+Page=1" class="tlink">Search</a></li>`
- `<li class="journals"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&tab=journals&C=yrovft&Jump+to+Browse=yrovft&New+Database=S.dbListAll%7cSingle%7c26" class="tlink">Journals</a></li>`
- `<li class="books"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&tab=books&C=books&Jump+to+Browse=books&New+Database=S.dbListAll%7cSingle%7c3" class="tlink">Books</a></li>`
- `<li class="workspace"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&C=_main&tab=workspace.projects&Projects+Main+Page=1" class="tlink">My Workspace</a></li>`
- `<li class="jbi">`
- `<li class="remote"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&New+Database=S.dbListAll%7cSingle%7c6&C=_main&pccodes=accsp" class="tlink">ACC CardioSource Plus</a></li>`

**Reason flagged:**

- List item does not have a `<ul>`, `<ol>` parent element without a role, or a `role="list"`

**SC 1.4.1:** Links must be distinguishable without relying on color.

**Location(s):**

- `<a href="https://www-ncbi-nlm-nih-gov.proxy.lib.umich.edu/pubmed/33759579" title="https://www-ncbi-nlm-nih-gov.proxy.lib.umich.edu/pubmed/33759579" target="_blank" class="bibrecord-extlink">`
- `<a href="https://www-ncbi-nlm-nih-gov.proxy.lib.umich.edu/pubmed/34585971" title="https://www-ncbi-nlm-nih-gov.proxy.lib.umich.edu/pubmed/34585971" target="_blank" class="bibrecord-extlink">`

**Reason flagged:**

- The link has insufficient color contrast of 1.7:1 with the surrounding text. (Minimum contrast is 3:1, link text: #005b92, surrounding text: #353535)
- The link has no styling (such as underline) to distinguish it from the surrounding text

**SC 1.4.3:** Elements must meet minimum color contrast ratio thresholds.

**Location(s):**

- `<a class="tlink view_selected_link tlinkdisable" role="button" title="Add selected to Search History" href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&View+Selected+Results=1" tabindex="-1" aria-hidden="true"><span class="wk-icon-plus-circle"></span>&nbsp;Keep Selected</a>`
- `<a class="tlink view_selected_link tlinkdisable" role="button" title="Add selected to Search History" href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&View+Selected+Results=1" tabindex="-1" aria-hidden="true"><span class="wk-icon-plus-circle"></span>&nbsp;Keep Selected</a>`

**Reason flagged:**

- Element has insufficient color contrast of 2.4 (foreground color: #80adc9, background color: #ffffff, font size: 10.5pt (14px), font weight: normal). Expected contrast ratio of 4.5:1

**SC 4.1.2:** Interactive controls must not be nested.

**Location(s):**

- `<button type="button" class="wk-button wk-button-text wk-button-icon-left wk-button-small">`

**Reason flagged:**

- Element has focusable descendants

**PDF Document Analysis:**

<b>PDF Area Assessed</b>	<b>Failed Issues</b>
<b>Document</b>	Tagged PDF Title
<b>Page Content</b>	Tagged Content Tagged Annotations Tab Order
<b>Forms</b>	<i>None</i>
<b>Alternate Text</b>	Figures Alt Text Nested Alt Text Associated with Content Hides Annotation Other Elements Alt Text
<b>Tables</b>	Rows TH and TD Headers Regularity Summary (skipped)
<b>Lists</b>	List Items Lbl and Lbody
<b>Headings</b>	Appropriate Nesting

## 4. Advanced Search

**Test Case:** Test "Advanced Search" page using: "Acetaminophen." Then select "Acetaminophen" and "Auto-Explode." Choose "Blood" from Subheadings Nodes.

The screenshot displays the Ovid MEDLINE(R) Advanced Search interface. At the top, there is a navigation bar with options like 'My Account', 'Ask a UM Librarian', 'Support & Training', 'Help', 'Feedback', and 'Log Off'. Below this is a search bar with 'Search History (5)' and 'View Saved' options. The main search area includes tabs for 'Basic Search', 'Find Citation', 'Search Tools', 'Search Fields', 'Advanced Search', and 'Multi-Field Search'. The 'Advanced Search' tab is active, showing '1 resource selected' and options to 'Hide' or 'Change'. The search criteria are set to 'Keyword' with the text 'exp Acetaminophen/bl [Blood]'. There are checkboxes for 'Include Multimedia' and 'Map Term to Subject Heading'. A 'Limits' section allows filtering by 'Abstracts', 'Structured Abstracts', 'English Language', 'No Language Specified', 'Review Articles', 'Humans', 'Clinically Useful Journals (JMLA July 2023)', 'Pharmacologic Actions', 'COVID-19', and 'Remove Preprint Records'. The search results section shows one result: 'Short-Term Safety of Repeated Acetaminophen Use in Patients With Compensated Cirrhosis' by McGill MR, et al. The interface also includes options for 'Print', 'Email', 'Export', '+ My Projects', 'Keep Selected', and 'Analyze'.

**SC 1.3.1:** Certain ARIA roles must contain particular children.

**Location(s):**

- `<ul class="top" role="menu">`



**Reason flagged:**

- Element has children which are not allowed: li[aria-current], li[tabindex]
- Element uses aria-busy="true" while showing a loader

**SC 1.3.1:** Certain ARIA roles must be contained by particular parents.

**Location(s):**

- `<li class="header-lists" role="menuitem">`

**Reason flagged:**

- Required ARIA parents role not present: menu, menubar, group

**SC 1.3.1:** `<ul>` and `<ol>` must only directly contain `<li>`, `<script>`, or `<template>` elements.

**Location(s):**

- `<ul class="header-list" id="headerList">`
- `<ul id="filterby-filters">`

**Reason flagged:**

- List element has direct children that are not allowed: [role=menuitem]
- List element has direct children that are not allowed: a

**SC 1.3.1:** `<li>` elements must be contained in a `<ul>` or `<ol>`.

**Location(s):**

- `<li aria-current="page" class="current search"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&C=_main&tab=search&Main+Search+Page=1" class="tlink">Search</a></li>`
- `<li class="journals"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&tab=journals&C=yrovft&Jump+to+Browse=yrovft&New+Database=S.dbListAll%7cSingle%7c26" class="tlink">Journals</a></li>`
- `<li class="books"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&tab=books&C=books&Jump+to+Browse=books&New+Database=S.dbListAll%7cSingle%7c3" class="tlink">Books</a></li>`
- `<li class="workspace"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&C=_main&tab=workspace.projects&Projects+Main+Page=1" class="tlink">My Workspace</a></li>`
- `<li class="jbi">`
- `<li class="remote"><a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&New+D`

```
atabase=S.dbListAll%7cSingle%7c6&amp;C=_main&amp;pcodes=accpsc"
class="tlink">ACC CardioSource Plus</a></li>
```

**Reason flagged:**

- List item does not have a <ul>, <ol> parent element without a role, or a role="list"

**SC 1.4.3:** Elements must meet minimum color contrast ratio thresholds.

**Location(s):**

- <a class="tlink view\_selected\_link tlinkdisable" role="button" title="Add selected to Search History" href="ovidweb.cgi?&amp;S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&amp;View+Selected+Results=1" tabindex="-1" aria-hidden="true"><span class="wk-icon-plus-circle"></span>&nbsp;Keep Selected</a>
- <a class="tlink view\_selected\_link tlinkdisable" role="button" title="Add selected to Search History" href="ovidweb.cgi?&amp;S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&amp;View+Selected+Results=1" tabindex="-1" aria-hidden="true"><span class="wk-icon-plus-circle"></span>&nbsp;Keep Selected</a>

**Reason flagged:**

- Element has insufficient color contrast of 2.4 (foreground color: #80adc9, background color: #ffffff, font size: 10.5pt (14px), font weight: normal). Expected contrast ratio of 4.5:1

**SC 4.1.2:** Elements must only use supported ARIA attributes.

**Location(s):**

- <div class="ovid-vertical-widget ui-widget ui-widget-content ui-helper-clearfix ovid-widget ovid-widget-search\_information " id="search\_information" role="application" aria-selected="false" draggable="true" tabindex="0" aria-labelledby="search\_information-instruction" onkeydown="dragElement(event)" aria-grabbed="false" aria-dropeffect="move">
- <div class="ovid-vertical-widget ui-widget ui-widget-content ui-helper-clearfix ovid-widget ovid-widget-filter\_by " id="filter\_by" role="application" aria-selected="false" draggable="true" tabindex="0" aria-labelledby="filter\_by-instruction" onkeydown="dragElement(event)" aria-grabbed="false" aria-dropeffect="move">
- <span class="filters-inactive browse-journal-subject-selected" aria-selected="true">All Stars</span>
- <div class="ovid-vertical-widget ui-widget ui-widget-content ui-helper-clearfix ovid-widget ovid-widget-my\_projects " id="my\_projects" role="application" aria-selected="false" draggable="true" tabindex="0" aria-labelledby="my\_projects-instruction" onkeydown="dragElement(event)" aria-grabbed="false" aria-dropeffect="move">

- `<div class="ovid-vertical-widget ui-widget ui-widget-content ui-helper-clearfix ovid-widget ovid-widget-JBI_Tools_Widgets" id="JBI_Tools_Widgets" role="application" aria-selected="false" draggable="true" tabindex="0" aria-labelledby="JBI_Tools_Widgets-instruction" onkeydown="dragElement(event)" aria-grabbed="false" aria-dropeffect="move">`

**Reason flagged:**

- ARIA attribute is not allowed: `aria-selected="false"`

**SC 4.1.2:** Elements must only use permitted ARIA attributes.

**Location(s):**

- `<span class="filter-chevron-icon" aria-label="Specific Year Range" tabindex="-1"></span>`

**Reason flagged:**

- `aria-label` attribute cannot be used on a `span` with no valid `role` attribute.

**SC 4.1.2:** ARIA attributes must conform to valid names.

**Location(s):**

- `<div class="msp-ovidclassic-box clearfix" id="ovidclassic" role="tabpanel" aria-labelledby="ovidclassic-tab">`
- `<a href="ovidweb.cgi?&S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&RT+Widget+Options=RT" role="button" tabindex="0" aria-labelledby="options-label" class="wk-custom-text-button" data-ual-handler--1622985963="true">`

**Reason flagged:**

- Invalid ARIA attribute name: `aria-labeledby`

**SC 4.1.2:** Interactive controls must not be nested.

**Location(s):**

- `<li role="tab" tabindex="-1" id="easy-tab" aria-selected="false"><a class="tlink mode-button" href="ovidweb.cgi?S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&Display+Mode=easy" data-ual-handler--211366781="true">Basic Search</a></li>`
- `<li role="tab" tabindex="-1" id="findcite-tab" aria-selected="false"><a class="tlink mode-button" href="ovidweb.cgi?S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&Display+Mode=findcite" data-ual-handler--304534413="true">Find Citation</a></li>`
- `<li role="tab" tabindex="-1" id="subjsrch-tab" aria-selected="false"><a class="tlink mode-button"`

- href="ovidweb.cgi?S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&Display+Mode=subjsrch" data-ual-handler--925654691="true">Search Tools</a></li>
- <li role="tab" tabindex="-1" id="fields-tab" aria-selected="false"><a class="tlink mode-button" href="ovidweb.cgi?S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&Display+Mode=fields" data-ual-handler--178063802="true">Search Fields</a></li>
- <li role="tab" tabindex="-1" id="multifield-tab" aria-selected="false"><a class="tlink mode-button" href="ovidweb.cgi?S=HAAIFPNFKGEBMCABIPKJOHLEIMHJAA00&Display+Mode=multifield" data-ual-handler--1463215170="true">Multi-Field Search</a></li>

**Reason flagged:**

- Element has focusable descendants

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