

High-level accessibility review – BTAA (Ovid LWW - final version)

Primary Point of Contact

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High-level accessibility review – Ovid LWW

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Ovid LWW

Summary (top 3 problems for Ovid LWW)

This assessment covers the Ovid LWW application. While obvious efforts have been made to make the application very accessible to screen readers through the use of ARIA and proper use of semantic HTML markup, the overall usability of the application remains extremely complex, both for sighted users (regardless of whether they have a disability), and blind screen reader users. This causes this application to be unintuitive, and generally hard to use. Beyond this general statement about usability, the top 3 issues found in this application were:

1. **Lack of instructions** – A lot of features on the application require users to get a visual understanding of the context in which features are provided. That context is not always given clearly to screen reader users, and as a result, they may not understand how to operate parts of the interfaces.
2. **Focus management** – Every time a filter is selected in the search results, the screen refreshes and the keyboard focus is sent back to the search field, making it very difficult for sighted keyboard users and screen reader users to efficiently navigate through the application and filter through the results.
3. **Overall navigation from modals** – Focus not being maintained in modals will cause issue for keyboard users, who may easily find themselves leaving modals without their knowing and be stuck with a modal blocking their view and being unable to get back into it.

Accessibility findings

Project wide issues

The issues presented in this section were identified in multiple pages and are recorded here to avoid repetition. These are applicable to each screen. Due to particularities, similar issues are reported on a page per page basis, where applicable.

Automated findings using Axe

- **SC 1.4.3** – Elements do not meet contrast ratios between foreground and background colors.
- **SC 4.1.1** – ID attribute values used in the page are not unique.
- **SC 4.1.2** – HTML elements must only use allowed ARIA attributes (according to specification).

Issues found through automated testing come from the Axe plugin, an open source accessibility testing tool that is available for Firefox and Chrome. Details here: <https://www.deque.com/products/axe/>.

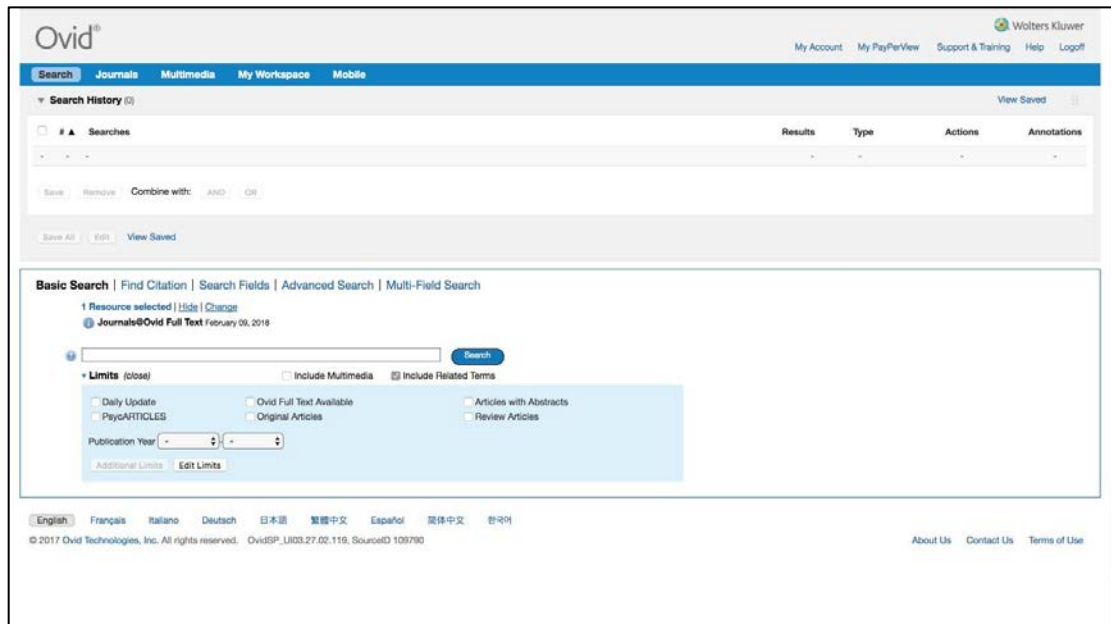
Additional manual findings using NVDA screen reader

- Refer to individual pages for details.

1. Ovid LWW landing page

Source: <http://ovidsp.tx.ovid.com/sp-3.27.2b/ovidweb.cgi>

Test case: Test basic and advanced search, journals browse, citation display, and full text article display (functionality driven from the first two columns on the left) From initial interface, which lands on the basic search, test switching between the different search options, and features on each option for accessibility. Move to “Basic Search”.



Automated findings using Axe

- **SC 1.3.1** – Table used for layout purposes relies on attributes that are reserved for data tables.
- **SC 1.3.1** – Checkboxes sharing the same name must be part of the same group.
- **SC 4.1.2** – ARIA-describedby attributes used do not conform to valid values.

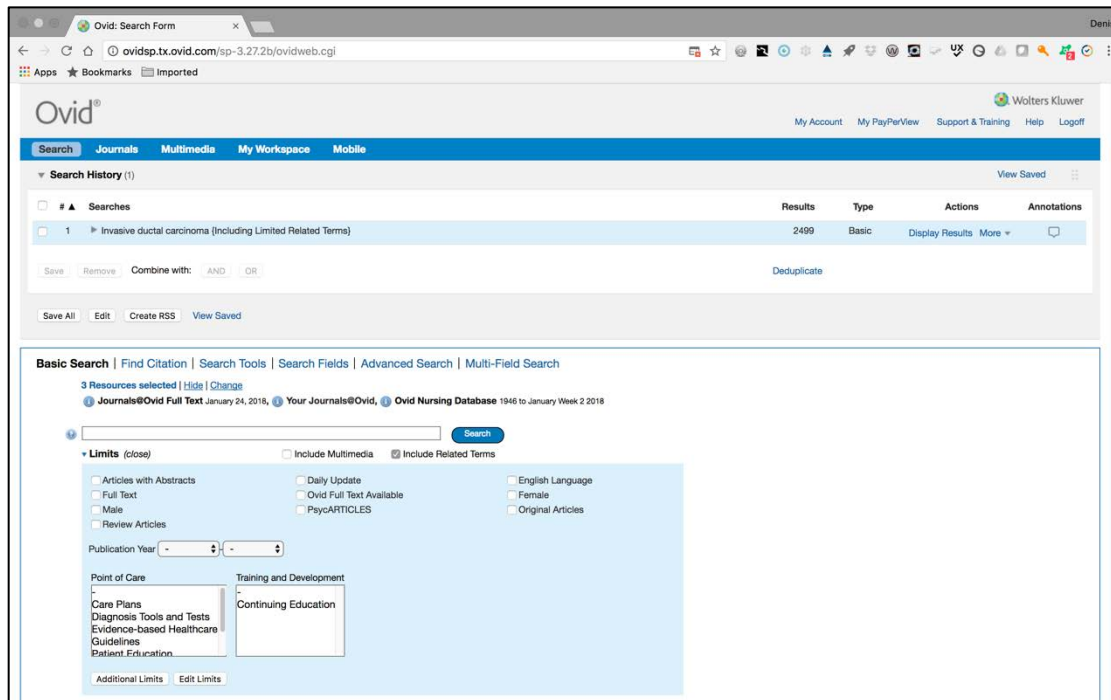
Additional manual findings using NVDA screen reader

- **SC 4.1.2** – Updated instructions when radio buttons change is not conveyed to screen readers.
- **SC 4.1.2** – All instructions from Advanced Search are conveyed at once in the Search text field.
- **SC 2.4.3** – The Select Resources to Search modal does not keep focus within itself.
- **SC 2.4.3** – When that same modal is closed, the focus is returned to the Search History section.
- **SC 4.1.2** – The addition of a new row in Multi-Field Search is not conveyed to screen readers.

2. Ovid LWW basic search page

Source: <http://ovidsp.tx.ovid.com/sp-3.27.2b/ovidweb.cgi>

Test case: Move to “Basic Search”. Search for “Invasive ductal carcinoma” and click on “Search.” Test results page, including: sort by dropdowns (left navigation), filter by (left navigation), viewing abstract, adding results to the folder (plus sign below each result), and links on right (Table of Contents, Abstract Reference, Find Similar, and Finding Citing Articles).



Automated findings using Axe

- **SC 1.3.1** – Checkboxes sharing the same name must be part of the same group.

Additional manual findings using NVDA screen reader

- **SC 1.3.1** – Some headings in the left column (Options sidebar) are not marked up as such.
- **SC 1.3.2** – The button to hide the filter section comes AFTER the section in the DOM.
- **SC 2.1.1** – The Export Citations modal does not get keyboard focus when displayed.
- **SC 2.4.3** – Screen reader users are not made aware of the search result findings on page reload.
- **SC 2.4.3** – The Customize Display of Results modal does not keep focus within itself.
- **SC 2.4.3** – The Print Citation List modal does not keep focus within itself.
- **SC 2.4.3** – The Email Citation List modal does not keep focus within itself.
- **SC 2.4.3** – Sidebar filter selection moves the keyboard focus back into the search text field.
- **SC 2.4.3** – Keyboard focus is not sent to the record abstract once the button is triggered.
- **SC 2.4.4** – The Down arrow icon next to Open Access Results has no meaningful text.
- **SC 2.4.4** – Redundant links for each entry are not meaningful with their immediate context.
- **SC 3.2.2** – Selecting filters in the sidebar unexpectedly refreshes the entire screen.
- **SC 4.1.2** – Screen reader don't clearly convey additional filters when “More” links are triggered.
- **SC 4.1.2** – The Abstract button within records does not convey it has a collapse/expand state.

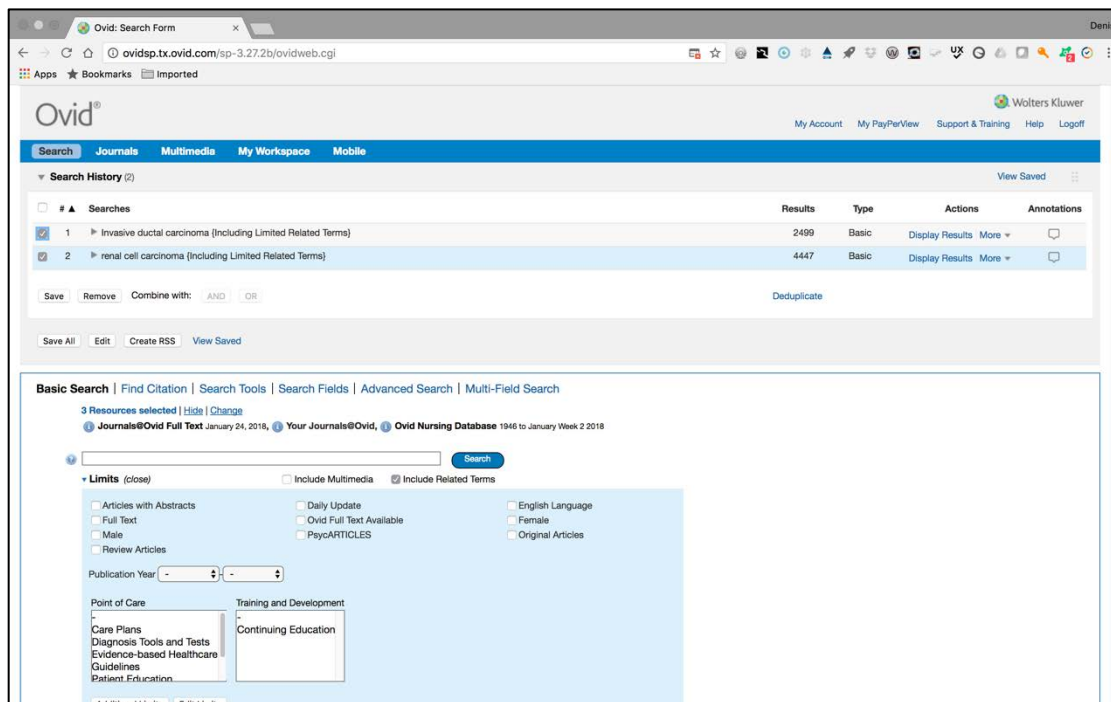
3. Ovid LWW basic search page + combined results

Source: <http://ovidsp.tx.ovid.com/sp-3.27.2b/ovidweb.cgi>

Test case: Perform a new basic search for "renal cell carcinoma" and test combining search results with original results to create a new search from the search history section. Combine with AND. Then use EDIT to EDIT the existing search. Change AND to OR and rerun the search.

Important note!

Could not successfully combine search results into a new search. The options to combine search results into a new search would not become active. As a result, this particular query could not be conducted. However, every issue reported in the previous part of this assessment still apply in full on this screen.



Automated findings using Axe

- Nothing specific beyond what has already been reported in Section 2, , due to inability to successfully complete the requested task, as well as under Project-wide issues.

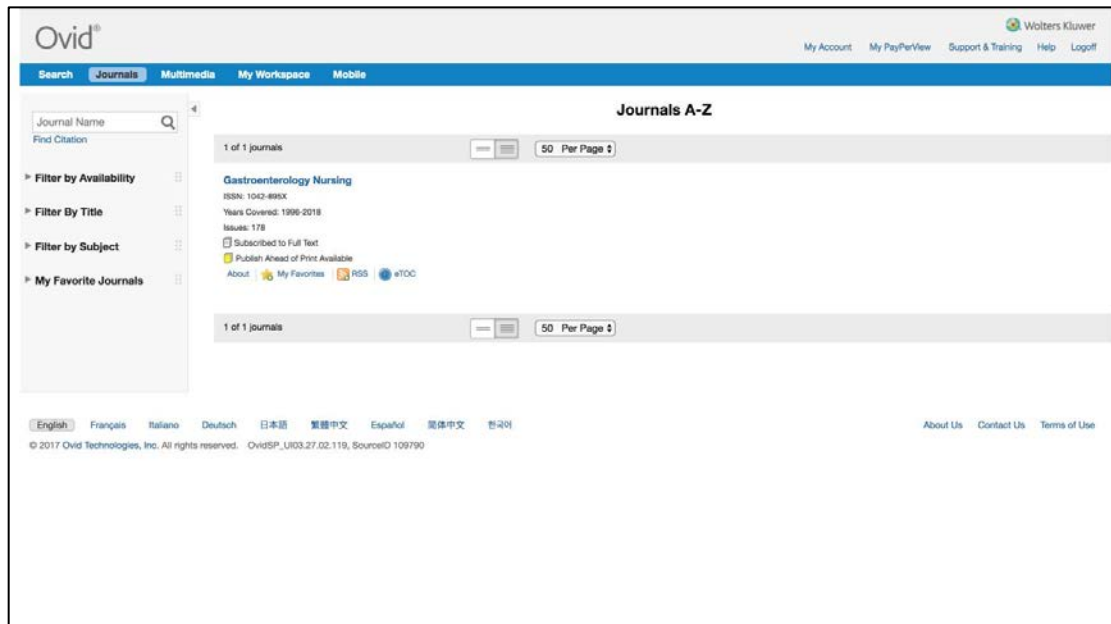
Additional manual findings using NVDA screen reader

- Nothing specific to report beyond what has already been reported in Section 2, due to inability to successfully complete the requested task.

4. Ovid LWW Journals dropdown page

Source : <http://ovidsp.tx.ovid.com/sp-3.27.2b/ovidweb.cgi?&S=KKGBFPAJFCDDPHKONCFKBBLBJHGAAA00&tab=journals&C=yrovft&Jump+to+Browse=yrovft&New+Database=S.dbListAll%7cSingle%7c16>

Test case: Go to Journals dropdown. Browse to “Gastroenterology Nursing” and Search “Gastroenterology Nursing”. Then go to journal landing page.



Automated findings using Axe

- **SC 1.1.1** – Inline images must have alt attributes or similar values.
- **SC 1.3.1** – Journal Search button currently has no discernable text.
- **SC 1.3.1** – Dropdown menus with number of items per page must have labels.
- **SC 2.4.4** – Standalone link on RSS icon must have discernible text (or be combined).
- **SC 4.1.2** – ARIA-expanded attributes have invalid values (“ false “ – with empty spaces).

Additional manual findings using NVDA screen reader

- **SC 1.3.1** – Some headings in the left column (Options sidebar) are not marked up as such.
- **SC 1.3.1** – Gastroenterology Nursing is displayed as a heading yet is not marked up as such.
- **SC 1.3.2** – The button to hide the filter section comes AFTER the section in the DOM.
- **SC 2.1.1** – Only bolded Filter Subjects can be tabbed, while arrow icons are still mouse clickable.
- **SC 4.1.2** – Autocomplete on Journal name search field is not conveyed to screen reader users.

5. Ovid LWW Journals Gastroenterology Nursing page

Source: http://ovidsp.tx.ovid.com/sp-3.27.2b/ovidweb.cgi?&S=JNFDFPFIFCDDPHIPNCFKNFLBEHHLAA00&Browse=Toc+Children%7cNO%7cS.s.h.5892_1518369482_46.5892_1518369482_58.5892_1518369482_66%7c14%7c50

Test case: On journal landing page, navigate to 2014 Volume 37 (4) from the journal issue list on the left. Click on article, “The Effectiveness of a Structured Educational Intervention on Disease-Related Misconception and Quality of Life in Patients with Irritable Bowel Syndrome.”

The screenshot displays the Ovid LWW Journals interface for 'Gastroenterology Nursing'. The page header includes the Ovid logo and navigation links like 'My Account', 'My PayPerView', 'Support & Training', 'Help', and 'Logout'. The main content area shows the journal title, volume information, and ISSN. A search bar is located on the left. Below the journal information, there is a list of articles with checkboxes for selection and options for 'Full Text', 'Abstract', and 'Permissions'. The 'Journal Issue List' on the left shows the current issue selected.

Automated findings using Axe

- **SC 1.1.1** – Inline images must have alt attributes or similar values.
- **SC 1.3.1** – Forms controls must have programmatically associated labels.
- **SC 1.3.1** – Dropdown menus with number of items per page must have labels.
- **SC 2.4.4** – Links on icons (RSS, TOC, Email, etc.) must have discernible text.

Additional manual findings using NVDA screen reader

- **SC 1.3.1** – Gastroenterology Nursing is displayed as a heading yet is not marked up as such.
- **SC 1.3.2** – The button to hide the filter section comes AFTER the section in the DOM.
- **SC 2.1.1** – The Export Citations modal does not get keyboard focus when displayed.
- **SC 2.4.3** – The Print Citation List modal does not keep focus within itself.
- **SC 2.4.3** – The Email Citation List modal does not keep focus within itself.
- **SC 2.4.3** – Keyboard focus is not sent to the record abstract once the button is triggered.
- **SC 2.4.4** – Arrow icons under Journal Issue List have no meaningful text.
- **SC 2.4.4** – Redundant links for each entry are not meaningful with their immediate context.
- **SC 2.4.6** – Each entry has a h2 assigned to it with confusing copy (Full text link).
- **SC 4.1.2** – Arrow and years links under Journal Issue List don't convey state to screen readers.
- **SC 4.1.2** – Checkboxes preceding result don't have programmatically associated labels.
- **SC 4.1.2** – The Abstract button within records does not convey it has a collapse/expand state.

6. Ovid LWW Journals Details page

Source: http://ovidsp.tx.ovid.com/sp-3.27.2b/ovidweb.cgi?&S=GBECFPPGPGDDPHBANCFKHLBLCMFAA00&Link+Set=S.sh.2966_1518375131_22.2966_1518375131_34.2966_1518375131_42.2966_1518375131_44.2966_1518375131_48.2966_1518375131_52%7c5%7csl_10

Test case: Test full text article accessibility in both HTML and PDF. Briefly test “tools” available on right menu.

The screenshot shows the Ovid LWW Journals Details page. The page title is "The Effectiveness of a Structured Educational Intervention on Disease-Related Misconception and Quality of Life in Patients With Irritable Bowel Syndrome". The page includes a search bar, navigation tabs (Search, Journals, Multimedia, My Workspace, Mobile), and a sidebar with "Tools" and "Outline" sections. The main content area displays the article title, authors (Yu, Wen-Zhen MSN; Ouyang, Yan-Qiong MD; Zhang, Qian MM; Li, Kong-Ling MBBS; Chen, Ji-Hong MD), and author information. The "Tools" section includes options like "Article as PDF (168KB)", "Abstract Reference", "Complete Reference", "Print Preview", "Email Jumpstart", "Email PDF Jumpstart", "Email Article Text", "Save Article Text", "Add to My Projects", "Export All Images to PowerPoint", and "Annotate". The "Outline" section includes "Abstract" and "Background".

Automated findings using Axe

- **SC 1.1.1** – Inline images must have alt attributes or similar values.
- **SC 2.4.4** – Links following Email Jumpstart and Email PDF Jumpstart must have discernible text.

Additional manual findings using NVDA screen reader

- **SC 1.1.1** - Images used to represent tables are not provided with appropriate alt text.
- **SC 1.1.1** – Complex images such as the data tables shown must have a text equivalent.
- **SC 1.3.2** – The image cover and the link to Hide cover are separated by publication information.
- **SC 1.3.1** – Features is displayed as a section heading but is not marked up as such.
- **SC 1.3.1** – References at the bottom of the page must be structured using list markup.
- **SC 1.3.1** – Author information is displayed as a section heading but is not marked up as such.
- **SC 1.3.1** – List of authors under Author Information must be structured using list markup.
- **SC 1.3.1** – List of tools located in the sidebar to the right must be structured using list markup.
- **SC 1.3.1** – The markup of the paragraphs of content rely on DIVs and are not semantically sound.
- **SC 2.1.1** – Collapsible links for Author Information and Abstract are not keyboard accessible.
- **SC 2.4.3** – The Table 1, 2 and 3 modals do not keep focus within themselves.
- **SC 4.1.2** – Collapsible Author Information and Abstract links do not convey their current state.

7. Ovid LWW Journals Details page (PDF version)

Source: http://ovidsp.tx.ovid.com/sp-3.27.2b/ovidweb.cgi?WebLinkFrameset=1&S=GBECFPPGPGDDPHBANCFKHLBLCMFAA00&returnUrl=ovidweb.cgi%3f%26Full%2bText%3dL%257cS.sh.2966_1518375131_22.2966_1518375131_34.2966_1518375131_42.2966_1518375131_44.2966_1518375131_48.2966_1518375131_52.2966_1518375131_58%257c0%257c00001610-201407000-00005%26S%3dGBECFPPGPGDDPHBANCFKHLBLCMFAA00&directlink=http%3a%2f%2fovidsp.tx.ovid.com%2fovftpdfs%2fFPDDNCLBFHBAPG00%2ffs047%2fovft%2flive%2fgv031%2f00001610%2f00001610-201407000-00005.pdf&filename=The+Effectiveness+of+a+Structured+Educational+Intervention+on+Disease-Related+Misconception+and+Quality+of+Life+in+Patients+With+Irritable+Bowel+Syndrome.&link_from=S.sh.2966_1518375131_22.2966_1518375131_34.2966_1518375131_42.2966_1518375131_44.2966_1518375131_48.2966_1518375131_52%7c5&pdf_key=FPDDNCLBFHBAPG00&pdf_index=/fs047/ovft/live/gv031/00001610/00001610-201407000-00005&D=yrovft

Test case: Test full text article accessibility in both HTML and PDF. Briefly test “tools” available on right menu.



Automated findings using Axe

- **SC 1.1.1** – Inline images must have alt attributes or similar values.
- **SC 1.3.1** – Email text field in Email Jumpstart form has no programmatically associated label.

Additional manual findings using NVDA screen reader

- **SC 4.1.2** – Through the browser viewer, the PDF document is unusable by screen readers.

Additional observations on the PDF document (once downloaded)

Some of the issues found in the PDF document include:

- The document is not tagged and contains no tagging structure.
- The document does not have any headings.

- Tables are not marked up according to tabular data markup.
- Links in the PDF would not be reliably recognized as such by screen reader software.
- No semantics are provided to help screen reader users navigate through the PDF
- Images are not marked up and provided with appropriate alt text.
- Annotations are not tagged properly or associated to the right tag elements.
- References and footnotes are not tagged properly or associated to the right tag elements.
- The primary language of the document is not identified.
- The document is not assigned a meaningful descriptive title in the document properties.
- Etc.

Note

While the PDF document cannot be considered accessible in the least, this is less of a problem in this context, given that the HTML version of the same document is somewhat accessible in the application itself. When the main version of the document is provided in an accessible HTML and the PDF serves as an alternate version, the alternate version is not required to be fully accessible (given that the main version fully meets requirements for accessibility).