VPAT Accessibility Conformance Report

(Based on ITI VPAT©)

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| **Name of Product** | **Embase** |
| **Date Last Updated** | **June 9, 2023** |
| Completed by | Jay Nemchik (Digital Accessibility Team) |
| **Applicable Standards/Guidelines** | This document rates Embase according to the W3C WCAG 2.1 A and AA requirements. |
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| **Testing Tools and Methods** | **Hands-on keyboard operation Firebug/Code inspection Firefox Web Developer Toolbar (removing style sheets) JAWS 18 on Mozilla Firefox 63 and MS IE 11 on Windows 10 NVDA screen reader v2019.2.1 Wave Extension**  **Color Contrast Analyzer W3C WAI Pages** Elsevier Accessibility Checklist: <http://romeo.elsevier.com/accessibility_checklist/> |
| **Document Sections** | The review document below includes all WCAG 2.1 A and AA checkpoints and is organized into 6 logical sections:   * Visuals * Keyboard * Headings and Structure * Labeling * Multimedia * Usability |
| **Pages Covered** | Header, Footer, Quick Search, Search Results, Emtree, Browse Journals, Journal Page, Record Details |
| **Terms** | * **Supports: The functionality of the product has at least one method that meets the criteria without known defects or meets with equivalent facilitation.** * **Partially supports: Some functionality of the product does not meet the criteria.** * **Does not support: Majority of functionality of the product does not meet the criteria.** * **Supports (N/A): According to W3C on conformance, "If there is no content to which a success criterion applies, the success criterion is satisfied."** |
| **Notes/Terminology** | **“AT” stands for Assistive Technology such as screen readers, voice input, etc.** |

| **WCAG 2.1 Success Criterion** | **Level** | **Evaluation** |
| --- | --- | --- |
| 1.1.1 Non-text Content | A | Partially supports |
| 1.2.1 Audio-only and Video-only (Prerecorded) | A | Supports (N/A) |
| 1.2.2 Captions (Prerecorded) | A | Supports (N/A) |
| 1.2.3 Audio Description or Full Text Alternative | A | Supports (N/A) |
| 1.2.4 Captions (Live) | AA | Supports (N/A) |
| 1.2.5 Audio Description | AA | Supports (N/A) |
| 1.3.1 Info and Relationships | A | Partially supports |
| 1.3.2 Meaningful Sequence | A | Partially supports |
| 1.3.3 Sensory Characteristics | A | Supports |
| 1.3.4 Orientation (2.1) | AA | Supports |
| 1.3.5 Identify Input Purpose (2.1) | AA | Supports (N/A) |
| 1.4.1 Use of Color | A | Partially supports |
| 1.4.2 Audio Control | A | Supports (N/A) |
| 1.4.3 Contrast (Minimum) | AA | Partially supports |
| 1.4.4 Resize text | AA | Partially supports |
| 1.4.5 Images of Text | AA | Supports |
| 1.4.10 Reflow (2.1) | AA | Partially supports |
| 1.4.11 Non-Text Contrast (2.1) | AA | Supports |
| 1.4.12 Text Spacing (2.1) | AA | Supports |
| 1.4.13 Content on Hover or Focus (2.1) | AA | Supports |
| 2.1.1 Keyboard | A | Partially supports |
| 2.1.2 No Keyboard Trap | A | Supports |
| 2.1.4 Character Key Shortcuts (2.1) | A | Supports (N/A) |
| 2.2.1 Timing Adjustable | A | Does not support |
| 2.2.2 Pause, Stop, Hide | A | Supports (N/A) |
| 2.3.1 Three Flashes or Below Threshold | A | Supports (N/A) |
| 2.4.1 Bypass Blocks | A | Partially supports |
| 2.4.2 Page Titled | A | Partially supports |
| 2.4.3 Focus Order | A | Partially supports |
| 2.4.4 Link Purpose (In Context) | A | Partially supports |
| 2.4.5 Multiple Ways | AA | Partially supports |
| 2.4.6 Headings and Labels | AA | Supports |
| 2.4.7 Focus Visible | AA | Partially supports |
| 2.5.1 Pointer Gestures (2.1) | A | Supports (N/A) |
| 2.5.2 Pointer Cancellation (2.1) | A | Supports |
| 2.5.3 Label in Name (2.1) | A | Supports |
| 2.5.4 Motion Actuation (2.1) | A | Supports (N/A) |
| 3.1.1 Language of Page | A | Supports |
| 3.1.2 Language of Parts | AA | Supports (N/A) |
| 3.2.1 On Focus | A | Supports |
| 3.2.2 On Input | A | Supports |
| 3.2.3 Consistent Navigation | AA | Supports |
| 3.2.4 Consistent Identification | AA | Supports |
| 3.3.1 Error Identification | A | Supports (N/A) |
| 3.3.2 Labels or Instructions | A | Partially supports |
| 3.3.3 Error Suggestion | AA | Supports (N/A) |
| 3.3.4 Error Prevention (Legal, Financial, Data) | AA | Supports (N/A) |
| 4.1.1 Parsing | A | Partially supports |
| 4.1.2 Name, Role, Value | A | Partially supports |
| 4.1.3 Status Messages (2.1) | AA | Does not support |

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| **Visuals** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [1.1.1: Non-Text Content](http://www.w3.org/TR/WCAG20/#text-equiv-all) (A) Provide text alternatives for non-text content (e.g., images) | Partially supports | Almost all images, icons, and graphs include text equivalents.  **Exceptions:**  Header: The institution icon button does not have alternative text. In mobile view, the navigation panel button does not have alternative text.  Search Results: The Sources SVG in the filters area does not have alternative text.  Emtree: The Emtree nodes that depict whether a node has expandable content does not have alternative text or ARIA. |
| [1.3.3: Sensory Characteristics](http://www.w3.org/TR/WCAG20/#content-structure-separation-understanding) (A) Do not rely on sensory characteristics of components such as shape, size, visual location, orientation, or sound | Supports | Content does not rely on sensory characteristics. |
| [1.4.1: Use of Color](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-without-color) (A) Color is not used as the only visual means of conveying info | Partially supports | Color is not used as the only means of conveying information for most content.  **Exceptions:**  Footer: The Cookies link used in the footer is non-underlined text and has a color that is not contrasting enough with the surrounding text. This link text requires a contrast of at least 3:1 between it and the surrounding text. |
| [1.4.3: Color Contrast (Minimum)](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-contrast) (AA) Text has enough contrast with the background (4.5:1 for small text and 3:1 for large text) | Partially supports | Most text has enough contrast with its corresponding background.  **Exceptions:**  Header: The Select Language text does not have enough contrast at 3.91:1.  Search Results: The gray numbers for the filtering checkboxes do not have enough contrast at 2.85:1. The orange on white text in several areas does not have enough contrast at 3.07:1.  Emtree: The orange on white text does not have enough contrast at 2.84:1. The number of synonyms for a term does not have enough contrast at 2.96:1.  Browse Journals: The orange letter does not have enough contrast at 2.84:1. |
| [1.4.4: Resize Text](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-scale) (AA)  Text can be enlarged up to 200% without loss of functionality. | Partially supports | Users can resize browser text to 200% without loss of functionality in most areas.  **Exceptions:**  Header: The content within the Select Language modal gets cut off at high magnification levels.  Search Results: The modals on the page are cut off at high magnification levels. |
| [1.4.5: Images of Text](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-text-presentation) (AA) Text is used rather than images of text, except where the presentation of text is essential, such as logos | Supports | No images of text are used other than for Logos or essential presentation. |
| [1.4.10 Reflow](https://www.w3.org/TR/WCAG21/#reflow) (AA) (2.1) Content can be presented without loss of information or functionality, and without requiring scrolling in two dimensions for:  Vertical scrolling content at a width equivalent to 320 CSS pixels;  Horizontal scrolling content at a height equivalent to 256 CSS pixels. | Partially supports | At small screen sizes, all content is displayed in one scrolling direction for most pages.  **Exceptions:**  Header: The select language modal does not scale and the content within cannot seen at small screen sizes.  Search Results: The modals on the page do not scale and the content within cannot be seen at small screen sizes. |
| [1.4.11 Non-Text Contrast](https://www.w3.org/TR/WCAG21/#non-text-contrast) (AA)  (2.1) User interact components and graphical objects have a contrast ratio of at least 3:1 against adjacent color(s). | Supports | UI components and graphical objects pass the minimum contrast ratio of 3:1. |
| [1.4.12 Text Spacing](https://www.w3.org/TR/WCAG21/#text-spacing) (AA)  (2.1)  In content implemented using markup languages that support the following text style properties, no loss of content or functionality occurs by setting all the following and by changing no other style property:  Line height (line spacing) to at least 1.5 times the font size;  Spacing following paragraphs to at least 2 times the font size;  Letter spacing (tracking) to at least 0.12 times the font size;  Word spacing to at least 0.16 times the font size. | Supports | All content can be adjusted to the minimum text spacing requirements without loss of readability or functionality. |
| [1.4.13 Content on Hover or Focus](https://www.w3.org/TR/WCAG21/#content-on-hover-or-focus) (AA)  (2.1)  Where receiving and then removing pointer hover or keyboard focus triggers additional content to become visible and then hidden, the following are true:   * Dismissable * Hoverable * Persistent | Supports | There are a few instances of content that appears on hover, and they are hoverable and dismissable. |
| [2.3.1: Three Flashes or Below Threshold](http://www.w3.org/TR/WCAG20/#seizure-does-not-violate) (A) No more than three flashes in a 1-second period, or the flashes are below the defined thresholds | Supports (N/A) | No flashing content exists. |
| **Keyboard** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [1.3.2: Meaningful Sequence](http://www.w3.org/TR/WCAG20/#content-structure-separation-sequence) (A)  The correct reading sequence can be programmatically  determined | Partially supports | The correct reading sequence is logical with the DOM order matching the visual order in most places.  **Exceptions:**  Header: In mobile view, the navigation content should not be reachable with AT when the content is not visible. |
| [2.1.1: Keyboard](http://www.w3.org/TR/WCAG20/#keyboard-operation-keyboard-operable) (A)  All functionality is available from a keyboard, except for tasks such as drawing | Partially supports | Most parts of the site have proper keyboard operability.  **Exceptions**:  Quick Search: The Select Date widget cannot be reached by keyboard.  Search Results: Most of the search options content cannot be reached as each tab is activated automatically upon receiving focus. Filtering and results checkboxes cannot be reached by keyboard. Radio buttons cannot be reached by keyboard. Most bulk actions cannot be reached by keyboard. Search history has content that appears on mouse hover but cannot be revealed by keyboard.  Emtree: The tree cannot be used by keyboard. The window splitter cannot be reached by keyboard.  Browse Journals: The number of results button dropdown should not automatically activate when moving between options with the keyboard. |
| [2.1.2: No Keyboard Trap](http://www.w3.org/TR/WCAG20/#keyboard-operation-trapping) (A)  The user can use the keyboard to move through page elements and is not trapped on a particular element | Supports | No keyboard traps exist on any page. |
| [2.1.4 Character Key Shortcuts](https://www.w3.org/TR/WCAG21/#character-key-shortcuts) (A)  (2.1)  If a keyboard shortcut is implemented in content using only letter (including upper- and lower-case letters), punctuation, number, or symbol characters, then at least one of the following is true:   * Turn off * Remap * Active only on focus | Supports (N/A) | No keyboard shortcuts are implemented on the site. |
| [2.4.3: Focus Order](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-focus-order) (A)  Users can tab through the elements of a page in a logical order | Partially supports | Tab order is logical on the site in most areas. Focus management works properly for some modal windows.  **Exceptions:**  Header: In mobile view, the navigation content should not be reachable with keyboard until the navigation options are expanded. The Select Language and mobile navigation modals do not manage focus properly.  Quick Search: The Change Field and Add Field popups should trap and manage focus like a modal dialog.  Search Results: The filter modals do not manage focus properly.  Record Details: View author addresses panel should manage focus like a modal. Export modal should return focus to the Export button when closed. |
| [2.4.7: Focus Visible](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-focus-visible) (AA)  The page element with the current keyboard focus has a visible focus indicator | Partially supports | Most elements use a custom-styled visible focus.  **Exceptions:**  Search Results: The select number of items <select> does not have a visible focus. |
| [3.2.1: On Focus](http://www.w3.org/TR/WCAG20/#consistent-behavior-receive-focus) (A)  When a UI component receives focus, this does not trigger unexpected actions. | Partially supports | Most focusable elements do not cause unexpected actions when receiving focus.  **Exceptions:**  Search results: The search option tabs activate automatically when receiving focus via tab. |
| **Headers and Structure** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [1.3.1: Information and Relationships](http://www.w3.org/TR/WCAG20/#content-structure-separation-programmatic) (A)  Info, structure, and relationships can be programmatically determined | Partially supports | Headings are used on most pages. Pages are missing h1s. Lists are typically used to group related content. Landmarks are used in several places.  **Exceptions:**  All pages: The main content should be in a <main> or have role="main". Each page needs an h1. |
| [2.4.1: Bypass Blocks](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-skip) (A)  Users can bypass repeated blocks of content. | Partially supports | Headings and landmarks exist, allowing screen reader users to skip repetitive content.  **Exceptions:**  There is no skip to main content link on any page. |
| [2.4.6: Headings and Labels](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-descriptive) (AA)  Headings and labels are clear and consistent. | Supports | Headings and labels used are clear and descriptive. |
| [3.1.1: Language of Page](http://www.w3.org/TR/WCAG20/#meaning-doc-lang-id) (A)  The language of the page is specified | Supports | The language is defined as lang="en" on most pages. |
| [3.1.2: Language of Parts](http://www.w3.org/TR/WCAG20/#meaning-other-lang-id) (AA)  Specify the language of text passages that are in a different language than the default language of the page. | Supports (N/A) | There are not instances of text that are in a different language than the page default. |
| [4.1.1: Parsing](http://www.w3.org/TR/WCAG20/#ensure-compat-parses) (A)  Use valid, error-free HTML | Partially supports | HTML and CSS passes concerning these 4 specific criteria:  (i) elements have complete start and end tags,  (ii) elements are nested according to their specifications  (iii) elements do not contain duplicate attributes  (iv) any IDs are unique, except where the specifications allow these features.  **Exceptions:**  Quick Search: There is a duplicate id of "field-selector".  Search Results: There are a few instances of duplicate IDs on the page. |
| **Labeling** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| 1.3.5 Identify Input Purpose (AA)  (2.1)  The purpose of each input field collecting information about the user can be programmatically determined when:  The input field serves a purpose identified in the Input Purposes for User Interface Components section; and the content is implemented using technologies with support for identifying the expected meaning for form input data. | Supports (N/A) | There are no fields for which the autocomplete attribute applies. |
| [2.4.2: Page Titled](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-title) (A)  The page has a title describing its topic or purpose | Partially supports | The title changes accordingly for most pages and is typically descriptive.  **Exceptions:**  Search Results: The page does not have a descriptive page title. |
| [2.4.4: Link Purpose (In Context)](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-refs) (A)  The purpose of each link can be determined from the link text or surrounding context. | Partially supports | Most links used have an identifiable purpose from the link text or surrounding context.  **Exceptions:**  Record Details: The CAS registry numbers logo links (Reaxys, PubChem) need to indicate which product they will link out to. |
| [2.5.3 Label in Name](https://www.w3.org/TR/WCAG21/#label-in-name) (A)  (2.1)  For user interface components with labels that include text or images of text, the name contains the text that is presented visually. | Supports | All user interface components have the visible label as the first part of the programmatic label. |
| [3.2.4: Consistent Identification](http://www.w3.org/TR/WCAG20/#consistent-behavior-consistent-functionality) (AA)  UI components used across the web site are identified consistently on every page. | Supports | UI components are consistent across the site in terms of HTML implementation and labelling. |
| [3.3.1: Error Identification](http://www.w3.org/TR/WCAG20/#minimize-error-identified) (A)  Input errors are clearly marked and described to the user. | Supports | Input errors are displayed well visually and programmatically. |
| [3.3.2: Labels and Instructions](http://www.w3.org/TR/WCAG20/#minimize-error-cues) (A)  Items requiring user input are clearly labeled or have clear instructions. | Partially supports | Most input areas have clear labels which are programmatically assigned.  **Exceptions:**  Quick Search: The autosuggest search options should announce their presence AT.  Search Results: The search input does not have a proper label, as placeholder alone is not sufficient. The filtering and results checkboxes do not have labels. |
| [3.3.3: Error Suggestion](http://www.w3.org/TR/WCAG20/#minimize-error-suggestions) (AA)  When the user makes an input error, give suggestions for valid input. | Supports (N/A) | There are no forms on the site that would give error suggestions. |
| [4.1.2: Name, Role, Value](http://www.w3.org/TR/WCAG20/#ensure-compat-rsv) (A)  For all UI components, the name, value, and role can be programmatically determined. | Partially supports | Most UI components properly communicate their state programmatically. A few custom components are missing proper ARIA attributes or roles.  **Exceptions:**  Header: The mobile navigation button needs an accessible name. The 'X' close button for the mobile menu needs an accessible name. The Institution button needs an accessible name. The mobile navigation and Select Language modals need role="dialog", aria-modal="true", and a proper label. The aria-haspopup="true" attributes should all be removed.  Quick Search: The Change and Add search buttons should not have aria-haspopup="true". The Limit To button needs aria-expanded at all times.  Search Results: The search option tabs are not marked up as ARIA tabs. All show/hide elements are missing aria-expanded attributes.  Emtree: The tree does not have any markup to communicate its content to AT, such as an ARIA tree. The Synonyms and Dorland's dictionary buttons are missing aria-expanded when collapsed. More Search Options button should not have aria-haspopup="true". The term information and Query builder tabs should be ARIA tabs.  Browse Journals: The number of results button needs aria-expanded.  Journal Page: The volume list should instead be ARIA tabs, where the issue list is the tabpanel.  Record Details: The hide/show buttons (Drug terms, Disease terms, etc.) need aria-expanded when collapsed. The term card close button needs to indicate which term card will be closed. |
| [4.1.3 Status Messages](https://www.w3.org/TR/WCAG21/#status-messages) (AA)  (2.1)  In content implemented using markup languages, status messages can be programmatically determined through role or properties such that they can be presented to the user by assistive technologies without receiving focus. | Does not support | There are very few status messages on the site.  The Add to Clipboard button on Record Details causes a status message to appear that does not announce to AT. |
| **Multimedia** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [1.2.1: Audio-only or Video-only (Prerecorded)](http://www.w3.org/TR/WCAG20/#media-equiv-av-only-alt) (A)  Provide alternatives for pre-recorded audio-only or video-only content. | Supports (N/A) | No pre-recorded audio-only or video-only content was reviewed. |
| [1.2.2: Captions (Prerecorded)](http://www.w3.org/TR/WCAG20/#media-equiv-captions) (A)  Provide captions for pre-recorded audio | Supports (N/A) | There is no pre-recorded audio on the site. |
| [1.2.3: Audio Description or Media Alternative (Prerecorded)](http://www.w3.org/TR/WCAG20/#media-equiv-audio-desc) (A)  Provide alternatives for pre-recorded synchronized audio/video | Supports (N/A) | There is no pre-recorded synchronized audio/video on the site. |
| [1.2.4: Captions (Live)](http://www.w3.org/TR/WCAG20/#media-equiv-real-time-captions) (AA)  Provide captions for live audio in synchronized audio/video. | Supports (N/A) | There is no live audio in synchronized audio/video. |
| [1.2.5: Audio Description (Prerecorded)](http://www.w3.org/TR/WCAG20/#media-equiv-audio-desc-only) (AA)  Provide an audio description of pre-recorded video. | Supports (N/A) | There is no pre-recorded video on the site. |
| [1.4.2: Audio Control](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-dis-audio) (A)  Audio can be paused and stopped, or the audio volume can be changed. | Supports (N/A) | There is no audio content on the site. |
| [2.2.2: Pause, Stop, Hide](http://www.w3.org/TR/WCAG20/#time-limits-pause) (A)  Users can stop, pause, or hide moving, blinking, scrolling, or auto-updating information. | Supports (N/A) | There is no moving, blinking, or scrolling content. |
| **Usability** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [2.2.1: Timing Adjustable](http://www.w3.org/TR/WCAG20/#time-limits-required-behaviors) (A)  Users are warned of time limits shorter than 20 hours and time limits can be turned off or extended | Does not support | Embase has a session timeout, but no warning is given or option to extend. |
| [2.4.5: Multiple Ways](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-mult-loc) (AA)  More than one way is available to navigate to other web pages. | Partially supports | Users can reach all pages in the system using the global navigation.  The Account Settings page can *only* be reached through the profile settings dropdown. |
| [3.2.2: On Input](http://www.w3.org/TR/WCAG20/#consistent-behavior-unpredictable-change) (A)  Changing the setting of a checkbox, radio button, or other UI component does not trigger unexpected changes in context. | Supports | User inputs do not cause unexpected actions. |
| [3.2.3: Consistent Navigation](http://www.w3.org/TR/WCAG20/#consistent-behavior-consistent-locations) (AA)  Navigation menus are in the same location and order on every web page. | Supports | Navigation menus are consistently in the same place and in same order on most pages. |
| [3.3.4: Error Prevention (Legal, Financial, Data)](http://www.w3.org/TR/WCAG20/#minimize-error-reversible) (AA)  For web pages with legal or financial commitments, input can be reviewed and corrected before final submission, and submissions can be reverted. | Supports (N/A) | No data submissions on the site require legal or financial commitments. No data submissions allow for a users’ profile to be deleted. |
| **Mobile User Experience** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [1.3.4 Orientation](https://www.w3.org/TR/WCAG21/#orientation)  (AA)  (2.1)  Content does not restrict its view and operation to a single display orientation, such as portrait or landscape, unless a specific display orientation is essential. | Supports | Content is not restricted to a single display orientation. |
| [2.5.1 Pointer Gestures](https://www.w3.org/TR/WCAG21/#pointer-gestures) (A)  (2.1)  All functionality that uses multipoint or path-based gestures for operation can be operated with a single pointer without a path-based gesture, unless a multipoint or path-based gesture is essential. | Supports (N/A) | There is no content on the site that requires multipoint or path-based gestures. |
| 2.5.2 Pointer Cancellation (A)  (2.1)  For functionality that can be operated using a single pointer, at least one of the following is true:   * No Down-Event * Abort or Undo * Up Reversal * Essential | Supports | All content that can be operated with a single pointer can be undone or is performed on the up-event. |
| [2.5.4 Motion Actuation](https://www.w3.org/TR/WCAG21/#motion-actuation)  (A)  (2.1)  Functionality that can be operated by device motion or user motion can also be operated by user interface components and responding to the motion can be disabled to prevent accidental actuation, except when:   * Supported Interface * Essential | Supports (N/A) | There is no content on the site that is activated by motion or actuation. |