VPAT Accessibility Conformance Report

(Based on ITI VPAT©)

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| **Name of Product** | **ClinicalPath Oncology** |
| **Date Last Updated** | **September 1, 2023** |
| Completed by | Nicholas Seow (Digital Accessibility Team) |
| **Applicable Standards/Guidelines** | This document rates ClinicalPath Oncology according to the W3C WCAG 2.1 A and AA requirements.  |
| **Contact for More Information** | Elsevier Digital Accessibility Teamaccessibility@elsevier.com |
| **Testing Tools and Methods** | * **Hands-on keyboard operation**
* **DevTools/Code inspection**
* **Mozilla Firefox 116 and Chrome 116 on Windows 11 22H2**
* **NVDA screen reader 2023.1**
* **WAVE Browser Extension**
* **Color Contrast Analyzer**
* [W3C Web Accessibility Initiative (WAI) Pages](https://www.w3.org/WAI/)
* [Elsevier Accessibility Checklist](http://romeo.elsevier.com/accessibility_checklist/)
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| **Document Sections** | This review document includes all WCAG 2.1 A and AA checkpoints, organized into 7 logical sections: * Visuals
* Keyboard
* Headings and Structure
* Labeling
* Multimedia
* Usability
* Mobile User Experience
 |
| **Pages Covered** | * Home
* Clinician Queues (& Pathway Navigation)
* Pathway Viewer
* Patient Search (& View Appointments, Add/Edit Appointment)
* Registration
* Trial Management
* Clinic Schedule
* Regimen Explorer
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| **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."**
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| **Notes/Terminology** | * **“AT” stands for Assistive Technology such as screen readers, voice input, etc.**
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## Conformance Summary

| **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 | 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 | Does not support |
| 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 | Partially supports |
| 1.4.10: Reflow (2.1) | AA | Does not support |
| 1.4.11: Non-Text Contrast (2.1) | AA | Partially supports |
| 1.4.12: Text Spacing (2.1) | AA | Supports |
| 1.4.13: Content on Hover or Focus (2.1) | AA | Does not support |
| 2.1.1: Keyboard | A | Partially supports |
| 2.1.2: No Keyboard Trap | A | Partially supports |
| 2.1.4: Character Key Shortcuts (2.1) | A | Supports (N/A) |
| 2.2.1: Timing Adjustable | A | Supports (N/A) |
| 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 | Does not support |
| 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 | Supports |
| 2.4.6: Headings and Labels | AA | Partially 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 | Does not support |
| 3.1.2: Language of Parts | AA | Supports (N/A) |
| 3.2.1: On Focus | A | Supports |
| 3.2.2: On Input | A | Partially supports |
| 3.2.3: Consistent Navigation | AA | Supports |
| 3.2.4: Consistent Identification | AA | Supports |
| 3.3.1: Error Identification | A | Partially supports |
| 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 | Supports |
| 4.1.2: Name, Role, Value | A | Partially supports |
| 4.1.3: Status Messages (2.1) | AA | Does not support |

## WCAG 2.1 A and AA Success Criteria

### Visuals

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| **WCAG 2.1****Checkpoint** | **Conformance Level** | **Remarks** |
| [1.1.1: Non-Text Content](https://www.w3.org/TR/WCAG21/#non-text-content) (A)Provide text alternatives for non-text content (e.g. images) | Partially supports | Most images and icons have appropriate text equivalents.**Exceptions:*** Home: Icons – Decorative icon graphics have extraneous text alternatives (e.g. "content", "news"), instead of null alt attributes
* Clinician Queues: Checkmark icons in "Done?" column – Icon graphics are meaningful but lack proper text alternatives (<span> elements only have title attributes)
* All pages: Button '?'/"Open Resource Center" for "ClinicalPath Tutorials" – Button encapsulates <img> element that lacks an alt attribute, rather than null alt="" (button has an aria-label)
* View Appointments: "Appointment Information" image heading – Graphic (heading text implemented via CSS background image) lacks a text alternative
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| [1.3.3: Sensory Characteristics](https://www.w3.org/TR/WCAG21/#sensory-characteristics) (A)Do not rely on sensory characteristics of components such as shape, size, visual location, orientation, or sound | Supports | There are no instructions or areas of content which rely solely on sensory characteristics. |
| [1.4.1: Use of Color](https://www.w3.org/TR/WCAG21/#use-of-color) (A)Color is not used as the only visual means of conveying info | Partially supports | Across the site, when color is used as a means of conveying information, another visual method is often also used to convey the information without color. For example, on Clinician Queues and Patient Search, many interactive text components/links are distinguished from non-interactive text via prepended symbolic icons as well as different color.**Exceptions:*** Trial Management, Regimen Explorer: Buttons – The only visual indication of focus for buttons is a subtle change of text and button fill color (e.g. grey to darker grey); the focus indicator lacks an additional visual cue
* Pathway Navigation: Fieldset inputs – Selected options are only distinguished by a change in text and background color (brown/orange vs blue/light grey)
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| [1.4.3: Color Contrast (Minimum)](https://www.w3.org/TR/WCAG21/#contrast-minimum) (AA)Text has enough contrast with the background (4.5:1 for small text and 3:1 for large text) | Partially supports | Text has sufficient contrast with its corresponding background in most areas across the site. For example, text content within tables typically features adequate contrast against cell backgrounds. The few instances to the contrary are largely found in component labeling/states, supplementary text, or modal content.**Exceptions:*** All pages: Item subtitles & search fields on "ClinicalPath Tutorials" – Text and components (grey) have insufficient contrast with the background (white)
* Trial Management, Regimen Explorer: Selected tab – Selected tab's text color (blue) lacks sufficient contrast against its background (white)
* Trial Management: Links within introductory text – Link text color (blue) lacks sufficient contrast against its background (white)
* Trial Management, Regimen Explorer: "Filter by diagnosis"/"Select a Disease", "Search…" field – Field placeholder text (light grey), representing the only available label for the input, programmatic or otherwise, has insufficient contrast against its background (white)
* Regimen Explorer: Introductory message – Text (green) lacks sufficient contrast against its container background (light green)
* Regimen Explorer: Links in "TP Details", "Citations" modals – Link text (light blue) lacks sufficient contrast against cell background (white)
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| [1.4.4: Resize Text](https://www.w3.org/TR/WCAG21/#resize-text) (AA)Text can be enlarged up to 200% without loss of functionality. | Partially supports | Text may be enlarged to 200% while preserving functionality of content in most instances. Several pages contain data tables of significance and informational modals that would typically require horizontal scrolling at higher text zoom levels.**Exceptions:*** Trial Management, Regimen Explorer: Tables – Data tables may exhibit a form of reflow (presentation within a single column) at 200% text zoom that dismantles the visually comprehensible relationships between table headers and cells
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| [1.4.5: Images of Text](https://www.w3.org/TR/WCAG21/#images-of-text) (AA)Text is used rather than images of text, except where the presentation of text is essential, such as logos | Partially supports | No images of text are used other than for logos or essential presentation in almost all instances across the site.**Exceptions:*** View Appointments: "Appointment Information" heading, "Add Appointment" button – Heading text is implemented via CSS background image; button is a stylized image of text where its particular visual presentation is arguably non-essential
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| [1.4.10 Reflow](https://www.w3.org/TR/WCAG21/#reflow)(AA)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. | Does not support | The site largely does not utilize a responsive view, and when zoomed, there may be loss of functionality or content: most pages require both vertical and horizontal scrolling. Several pages contain data tables of significance that would necessitate horizontal scrolling to preserve information relationships; cell content typically does not support reflow. In Trail Management and Regimen Explorer, data tables may exhibit a form of reflow (presentation within a single column) at high zoom levels/narrow viewports – however this results in a loss of meaning (i.e. the visually comprehensible relationships between table headers and cells). |
| [1.4.11 Non-Text Contrast](https://www.w3.org/TR/WCAG21/#non-text-contrast) (AA)User interact components and graphical objects have a contrast ratio of at least 3:1 against adjacent color(s). | Partially supports | Almost all non-text UI components and graphical objects have at least a 3:1 contrast ratio.**Exceptions:*** All pages: Close button 'x' for "ClinicalPath Tutorials" dialog – Button (grey) has insufficient contrast with its background (white)
* Clinician Queues, Patient Search, Registration: Drop-down selection fields – Visible focus indicator style (orange outline) for <select> elements may have insufficient contrast against form/page backgrounds that are grey. (Similarly-styled text <input> elements display a blinking caret on focus that provides a sufficiently strong visual indication, in addition to the orange outline.)
* Trial Management, Regimen Explorer: Buttons – The visual indication of button focus, a subtle change of button fill color (e.g. grey to darker grey), has insufficient color contrast against the background (white)
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| [1.4.12 Text Spacing](https://www.w3.org/TR/WCAG21/#text-spacing) (AA)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 | Users may adjust the text spacing of content on pages to the minimum baseline properties without causing loss of content or functionality. |
| [1.4.13 Content on Hover or Focus](https://www.w3.org/TR/WCAG21/#content-on-hover-or-focus) (AA)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
 | Does not support | Content that appears on hover or focus – while uncommonly encountered – are not dismissable, hoverable, or persistent according to the criteria.* Clinician Queues: "Save + Note" tooltip – Tooltip (activated upon cursor hover over the icons) is persistent and dismissable, but its additional content is not hoverable
* Pathway Viewer: Button tooltips – Tooltips activated via hover over buttons are persistent and dismissable, but the additional content is not hoverable
* Clinician Queues: Tooltips in "Select Plan of Care for [Other DX]" modal – Additional content is neither hoverable nor dismissable (Esc key dismisses modal container instead)
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| [2.3.1: Three Flashes or Below Threshold](https://www.w3.org/TR/WCAG21/#three-flashes-or-below-threshold) (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

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| **WCAG 2.1****Checkpoint** | **Conformance Level** | **Remarks** |
| [1.3.2: Meaningful Sequence](https://www.w3.org/TR/WCAG21/#meaningfuusequence) (A)The correct reading sequence can be programmatically determined | Supports | The correct reading sequence is logical, with the DOM order according with the visual order. |
| [2.1.1: Keyboard](https://www.w3.org/TR/WCAG21/#keyboard) (A)All functionality is available from a keyboard, except for tasks such as drawing | Partially supports | A substantial portion of standard web page content and functionality is keyboard operable across pages, although significant exceptions render the guided walkthrough tutorials and several other important components inoperable via keyboard.**Exceptions**:* Clinician Queues, Patient Search, Registration, Clinic Schedule, Add/Edit Appointment: Date picker dialog – Date picker (selection from calendar) controls in the dialog are not keyboard operable and do not receive keyboard focus – focus upon button activation is instead re-directed to the date field for typical text input
* Clinician Queues: "?" tooltip – Tooltip trigger does not receive keyboard focus and is unable to be activated via keyboard
* All pages: Guided walkthroughs via "ClinicalPath Tutorials" – Walkthrough tutorials may be initiated via keyboard, yet may not be completed past the initial steps with keyboard operation. Focus management keeps keyboard focus within the tutorial's modal dialogs, although the tutorial requires selection of components/links behind the dialog for progress. Closing such a dialog – ultimately the only option for a keyboard user – ends the tutorial.
* Pathway Navigation: Fieldset inputs – The groups of selectable options (stylized radio button fieldsets) are not keyboard operable (<input> elements are subject to CSS display:none)
* Trial Management, Regimen Explorer: Tablist – Components are not keyboard focusable – they are implemented as <a> anchor links without href attributes rather than buttons within a manually activated tablist
* Trial Management: Table column headers – Sort-by-value functionality – activated via mouseclick on various column headers – is not keyboard operable
* Trial Management: Accordion in "Disease(s)" modal – Accordion toggle "Show presentations where trial is not placed" is not keyboard focusable – it is implemented as a generic <div> rather than a button
* View Appointments: Components in "Actions" column – Components for "Edit/Delete Appointment" do not receive keyboard focus and are not keyboard operable
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| [2.1.2: No Keyboard Trap](https://www.w3.org/TR/WCAG21/#no-keyboard-trap) (A)The user can use the keyboard to move through page elements and is not trapped on a particular element | Partially supports | Most pages do not have a keyboard trap, although a grave exception is present on a couple of pages featuring content of significance.**Exceptions**:* Trial Management, Regimen Explorer: "Filter by diagnosis" field – Upon tabbing away from the field (or the adjacent clear button after selecting from the combobox list), keyboard focus is unexpectedly reset to the beginning of the page. Consequently, keyboard users may not be able to access much of the main page content.
 |
| [2.1.4 Character Key Shortcuts](https://www.w3.org/TR/WCAG21/#character-key-shortcuts) (A)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) | The site does not use any character key shortcuts. |
| [2.4.3: Focus Order](https://www.w3.org/TR/WCAG21/#focus-order) (A)Users can tab through the elements of a page in a logical order | Partially supports | Tab order is largely logical across the site and preserves the meaning and operability of content in most instances – at least where keyboard operability is present (see SC 2.1.1 for use of keyboard exceptions). Exceptions concern focus management within a few dialog/modal containers (most other dialogs feature logical focus management).Note: There exist a few points where focus management is not utilized for greater convenience to AT users, for example in indicating error messages upon form submission (focus may be shifted to the first erroneous field, rather than the error summary message).**Exceptions:*** All pages: "ClinicalPath Tutorials" dialog – Container lacks proper focus management: focus is not trapped inside the container while it is activated
* Trial Management: "Disease(s)" modal – Container lacks proper focus management – focus is not trapped inside the container while it is activated
* Regimen Explorer: "TP Details", "Citations" modals – Containers lack proper focus management – focus is not trapped inside the container while it is activated
 |
| [2.4.7: Focus Visible](https://www.w3.org/TR/WCAG21/#focus-visible) (AA)The page element with the current keyboard focus has a visible focus indicator | Partially supports | Most elements across the site have a decent visible indication of focus – the focus indicator is typically a prominent solid orange outline, or occasionally a fill color.**Exceptions:*** Trial Management: Buttons in "Status" column – Buttons lack any visual indication of focus
 |
| [3.2.1: On Focus](https://www.w3.org/TR/WCAG21/#on-focus) (A)When a UI component receives focus, this does not trigger unexpected actions. | Supports | Focusable elements do not cause unexpected actions/changes of context when receiving focus. |

### Headings and Structure

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| **WCAG 2.1****Checkpoint** | **Conformance Level** | **Remarks** |
| [1.3.1: Information and Relationships](https://www.w3.org/TR/WCAG21/#info-and-relationships) (A)Info, structure, and relationships can be programmatically determined | Partially supports | Headings are programmatically determinable in some areas to helpdistinguish content, although heading structure is somewhat sparse. Programmatically determinable lists are typically used to group related items – for example, global navigation links are organized within a list structure. Table markup is utilized appropriately in some instances (with header cells defined), for example on Clinician Queues and Patient Search results. However, several complex data tables do not feature sufficiently comprehensive structural markup.Note: PDF files available for download on various pages – most significantly Pathway Viewer & Pathway Flowchart documents, as well as various training and reference materials – may lack document structure tags which may render them less usable with AT.**Exceptions:*** All pages: Page structure – Page regions such as header, footer, global navigation, and main content area lack the appropriate landmarks (containers are generic <div>s rather than the respective HTML native elements)
* All pages: First heading – Pages lack an appropriately defined <h1> (<h2> or lower may be the top heading level)
* Home, Pathway Viewer: Section headings – Logical headings for each visually distinguished section of content (e.g. "Did You Know?", "Hematologic & Blood Disorders") lack heading markup
* Clinician Queues, Patient Search: Tables – Data tables lack sufficient structural markup for their complexity. Patient names are not designated as row headers; table headers lack scope attributes (scope="col/row").
* Clinician Queues: "?", "Note" tooltips – Relationship between tooltips & their additional content is not programmatically determinable (e.g. via aria-describedby attribute) – nor is content communicated to AT upon tooltip trigger via other methods. Proper component label may suffice for brief "Note" tooltip, however "?" tooltip content is longer/more signifcant.
* All pages: "Submit Support or Content Request " modal – Radio inputs are not appropriately grouped i.e. contained within fieldsets. Several inputs lack programmatic labels.
* Clinician Queues, Pathway Viewer: "Diagnosis Details" modal – Information appears in the form of hierarchical lists with expandable detail sections, but lacks list/other markup to semantically structure content – potentially details/summary disclosure markup
* Clinician Queues, Pathway Viewer: Selection fields in "Materials" modal – Inputs lack programmatic labels; adjacent text may function as visible labels but are not programmatically associated with inputs
* Clinician Queues: "Edit Diagnosis Description" field in modal – Input lacks a programmatic label; a table header functions as the visible label
* Clinician Queues: Radio inputs in "Plan of Care" modal containers – Inputs are visually presented in logical groups but are not appropriately grouped via markup. e.g. contained within fieldsets with relevant legend
* Pathway Navigation: Fieldsets – Logical groups of selectable options (stylized radio buttons), e.g. "Therapeutic Status", are organized within fieldsets but the visual headings/labels are not programmatically determinable (generic text rather than <legend> elements)
* Pathway Navigation: Search field in "Off Pathway Intervention Options" – Field placeholder text, "< start typing drug or regimen name >", representing the only available label for the input, does not suffice as a programmatically determinable label
* Patient Search: Input & select fields – Inputs lack programmatic labels; adjacent text may function as visible labels but are not programmatically associated with inputs
* Registration: "Date of Birth" field – Input lacks a programmatic label; adjacent text may function as a visible label but is not programmatically associated with the input
* Trial Management, Regimen Explorer: "Filter by diagnosis"/"Select a Disease", "Search…" field – Field placeholder text, representing the only available label for the input, does not suffice as a programmatically determinable label
* Trial Management, Regimen Explorer: Tables – Data tables lack sufficient structural markup for their complexity. e.g. Trial/regimen names are not designated as row headers; table headers lack scope attributes (scope="col/row").
* Clinic Schedule: Appointments table – Data tables lack sufficient structural markup for their complexity. MRN column not designated as row headers; table headers lack scope attributes (scope="col/row").
* Clinic Schedule: Schedule filter/date selection form – Tables are used for form layout, to arrange a set of fields – and the fields lack appropriate programmatically determinable labels (table headers serve as visible labels for several fields)
* Clinic Schedule: Headings – Logical headings (e.g. "Department Schedule", "Appointments for Friday…") lack heading markup
* Add/Edit Appointment: Input & select fields – Inputs lack programmatic determinable labels – tables are used for form layout; adjacent cell text may function as visible labels but are not programmatically associated with the inputs
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| [2.4.1: Bypass Blocks](https://www.w3.org/TR/WCAG21/#bypass-blocks) (A)Users can bypass repeated blocks of content. | Does not support | Headings and landmarks are somewhat thinly distributed across the site, which makes it inconvenient for AT users seeking to jump to different areas of content quickly. Note: On Patient Search & Registration, focus is placed on the first input element in the main content area upon page load, bypassing the header. On Clinician Queues, such keyboard focus management is not utilized, although the viewport automatically scrolls to the main content area upon page load.* All pages: Page structure – General lack of methods to bypass repeated content such as header and navigation (e.g. "skip to main content" link, main page region and other landmarks, headings for main content sections). Some pages do not have any heading structure.
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| [2.4.6: Headings and Labels](https://www.w3.org/TR/WCAG21/#headings-and-labels) (AA) Headings and labels are clear and consistent. | Partially supports | Headings are present in some areas to help distinguish content, although the general heading structure is somewhat sparse.**Exceptions:*** All pages: Headings – Pages may lack descriptive main headings, or descriptive headings for logical areas of content
 |
| [3.1.1: Language of Page](https://www.w3.org/TR/WCAG21/#language-of-page) (A)The language of the page is specified | Does not support | The language is not defined for any page across the site. |
| [3.1.2: Language of Parts](https://www.w3.org/TR/WCAG21/#language-of-parts) (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 no sections of text that do not match the default language of the page. |
| [4.1.1: Parsing](https://www.w3.org/TR/WCAG21/#parsing) (A)Use valid, error-free HTML | Supports | All pages use and error-free HTML; HTML and CSS typically pass concerning these 4 specific criteria: 1. elements have complete start and end tags,
2. elements are nested according to their specifications
3. elements do not contain duplicate attributes
4. any IDs are unique, except where the specifications allow these features.

Note: There may be other general HTML validation errors outside the scope of this criterion. |

### Labeling

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| **WCAG 2.1****Checkpoint** | **Conformance Level** | **Remarks** |
| [1.3.5 Identify Input Purpose](https://www.w3.org/TR/WCAG21/#identify-input-purpose) (AA)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. | Does not support | Relevant personal input fields are very uncommonly encountered across the site, but such fields lack autocomplete attributes where present.* All pages: Phone fields in "Submit Support or Content Request" modal – Personal input fields lack appropriate autocomplete attributes
 |
| [2.4.2: Page Titled](https://www.w3.org/TR/WCAG21/#page-titled) (A)The page has a title describing its topic or purpose | Partially supports | Most pages have descriptive page titles to help identify content or purpose. Page titles are typically prepended by “Cancer Care Pathways”, followed by page-specific keywords/title.**Exceptions:*** Patient Search: Page title for search results – Page title remains e.g. "Cancer Care Pathways - Search Patients" despite a context change upon conducting a search and receiving results – the title is less descriptive of this new/updated content
* Clinic Schedule: Page title for search results – Page title remains e.g. "Cancer Care Pathways - Department Schedule" despite a context change upon conducting a search and receiving results – some descriptive heading-esque text relating to the results (e.g. "Appointments for Friday...") is present
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| [2.4.4: Link Purpose (In Context)](https://www.w3.org/TR/WCAG21/#link-purpose-in-context) (A)The purpose of each link can be determined from the link text or surrounding context. | Partially supports | An identifiable purpose may be deduced for most links from the link text or surrounding context. For example, in Regimen Explorer modals, links to citations are presented within cells under an appropriate and meaningful column header (“Citation URLs”).**Exceptions:*** Home: Link buttons under "Links:" – Button activation effectively results in a hyperlink being followed to one in the set of reference materials (variously in the form of web pages, PDF files, or Excel files), and link targets open in a new window/tab. While the section heading is descriptive, the button labels/link text remain ambiguous and not sufficiently descriptive of their target/purpose.
* Trial Management: Link to disclaimer statement "click here" – Link text is ambiguous and insufficiently descriptive of its target/purpose (link destination is a PDF file, opened in a new window/tab)
* Regimen Explorer: "Download" link button – Button is encapsulated within an <a> element and behaves akin to a link when activated (downloads a spreadsheet file), however, label text "Download" may not adequately identify the link purpose. Icon graphic suggesting a spreadsheet provides an meaningful visual cue as to the button/link purpose, yet it is hidden from AT/lacks a text alternative.
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| [2.5.3 Label in Name](https://www.w3.org/TR/WCAG21/#label-in-name) (A)For user interface components with labels that include text or images of text, the name contains the text that is presented visually. | Supports | User interface components that have visible text contain that text consistently within the accessible name. |
| [3.2.4: Consistent Identification](https://www.w3.org/TR/WCAG21/#consistent-identification) (AA)UI components used across the web site are identified consistently on every page. | Supports | Components are typically consistent across the site, and identified consistently where they perform the same function across pages. |
| [3.3.1: Error Identification](https://www.w3.org/TR/WCAG21/#error-identification) (A)Input errors are clearly marked and described to the user. | Partially supports | Errors are largely identified and presented well visually.Note: In many instances – as such on Patient Search, Clinic Schedule, the "Submit Support or Content Request" dialog, etc. – error summaries identifying fields with invalid input are presented in text above form fields after form submission. The error messages are distinguished via different text color (red); affected fields may additionally be highlighted with yellow fill. Error states are, however, not programmatically communicated to AT, nor is focus management used for convenient error indication.**Exceptions:** * Patient Search, Registration: "Phone", "Date of Birth" fields – Leaving the field/removing focus will clear any incomplete values (e.g. partial phone numbers) without notice to the user, rather than identifying/describing the error. Client-side validation occurs during input, but is limited to automatic input masking to disallow invalid (non-digit) character entry.
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| [3.3.2: Labels or Instructions](https://www.w3.org/TR/WCAG21/#labels-or-instructions) (A)Items requiring user input are clearly labeled or have clear instructions. | Partially supports | Labels or instructions are provided for most form elements, most of which are programmatically associated with their inputs. Note: see SC 1.3.1 for exceptions where visible labels may not be programmatically associated with inputs.**Exceptions:** * Registration: "Phone" fields – Fields have specific character requirements (digits only), and client-side validation is conducted to disallow invalid characters. A visual placeholder (i.e. phone number format pattern) is displayed within the input upon focus – however, in general, neither field requirements nor the presence of input masking are communicated via appropriate instructions or helper text, programmatically or otherwise.
* Trial Management, Regimen Explorer: "Filter by diagnosis"/"Select a Disease", "Search…" field – Field placeholder text, representing the only available label for the input, is replaced by different combobox placeholder text immediately upon input focus. The initial placeholder functions better as a descriptive label but is obscured by less descriptive text; text may not be sufficiently instructive as to field behavior and use
* Add/Edit Appointment: "Appointment Time" field – Visible label text does not sufficiently describe input requirements/format nor instructions to operate the time picker widget
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| [3.3.3: Error Suggestion](https://www.w3.org/TR/WCAG21/#error-suggestion) (AA)When the user makes an input error, give suggestions for valid input. | Supports (N/A) | Error validation occurs, typically upon form submission. While error suggestions are largely limited to the identification of incomplete fields, the majority of inputs do not impose specific format/value requirements. Where client-side validation occurs for a few fields, e.g. “Phone” and “Date of Birth” in Patient Search and Registration, automatic input masking is utilized to enforce valid (digit) character entry. |
| [4.1.2: Name, Role, Value](https://www.w3.org/TR/WCAG21/#name-role-value) (A)For all UI components, the name, value, and role can be programmatically determined. | Partially supports | Some UI components communicate their state programmatically. For example, on Clinician Queues, various dialogs have appropriate roles, names (via aria-labelled-by attributes), and descriptions (via aria-described-by attributes).**Exceptions:*** Home: Link buttons under "Links:" – While its section heading is descriptive, the list of links to various reference materials (in the form of web pages, PDF and Excel files) are implemented in the form of generic <button> rather than <a> elements. The buttons may be less understandable and usable by users of AT, e.g. a screen reader user seeking to extract the list of links on the page
* Clinician Queues, Patient Search, Registration, Clinic Schedule, Add/Edit Appointment: Date picker icon button – Button lacks an accessible name – its label is empty as the icon lacks a text alternative
* Clinician Queues: "?", "Note" tooltips – Components are generic elements and lack proper accessible names – their icons, implemented via svg graphic or CSS font, lack appropriate programmatically determinable text alternatives. (Title attributes may be present on <span>/<a> elements but do not suffice.)
* Pathway Viewer: Buttons for pathway flowcharts – Buttons lack accessible names – labels are empty (icon lacks text alternative). While title attribute does not suffice as label text, it is present but is not descriptive.
* Trial Management, Regimen Explorer: Tablist – In addition to keyboard focus issues (see under SC 2.1.1), the list of links to select/activate tabbed content does not communicate state (e.g. selected tab) to AT, and tabbed content does not operate well overall as a manually activated tablist due to a lack of appropriate roles, states, and properties. The selection of tabs is not functional for use with keyboard/AT.
* Trial Management, Regimen Explorer: Search icon button – Button lacks an accessible name – its label is empty (icon is hidden from AT, yet no label text)
* Trial Management: "Disease(s)" modal – Modal container lacks dialog role and aria-modal="true" attributes. "Show presentations where trial is not placed" accordion is implemented via generic <div>s lacking appropriate roles, properties, and states – e.g. toggle is not a button.
* Trial Management: Clear button for "Filter by diagnosis" field – The filter removal button 'X' lacks an appropriate label, e.g. "Clear filter"
* Trial Management: "Filter by diagnosis" field – Combobox's listbox container lacks an appropriate label (aria-label attribute). Combobox's markup and use of aria-attributes for components may additionally cause excessive verbosity or other issues for AT users.
* Add/Edit Appointment: Time picker icon button – Button lacks an accessible name – its label is empty as the icon lacks a text alternative
* Add/Edit Appointment: Time picker widget – Selection of appointment time via the widget/dialog lack sufficient markup/roles/states to be properly operable via AT
* Regimen Explorer: "TP Details", "Citations" modals – Modal containers lack dialog role and aria-modal="true" attributes; the close button lacks an accessible name (empty label, with icon hidden from AT)
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| [4.1.3 Status Messages](https://www.w3.org/TR/WCAG21/#status-messages) (AA)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 | Status messages, while uncommonly encountered, are typically not announced by assistive technology. Note: Loading states are announced to AT via temporary “Loading…” dialogs (context changes).* Trial Management, Regimen Explorer: Table content – Same-page changes in the main page content (information presented in table), occasioned via filter selection or search, are not communicated to AT
* Trial Management: Trial Status message – Notification messages are displayed in the top-right corner of the screen when a selection is made from a button in the Status column, however the message does not have a relevant status role attribute and is not communicated to AT
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### Multimedia

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| **WCAG 2.1****Checkpoint** | **Conformance Level** | **Remarks** |
| [1.2.1: Audio-only or Video-only (Prerecorded)](https://www.w3.org/TR/WCAG21/#audio-only-and-video-only-prerecorded) (A)Provide alternatives for pre-recorded audio-only or video-only content. | Supports (N/A) | There is no pre-recorded audio-only or video-only content. |
| [1.2.2: Captions (Prerecorded)](https://www.w3.org/TR/WCAG21/#captions-prerecorded) (A)Provide captions for pre-recorded audio | Supports (N/A) | There is no pre-recorded audio content. |
| [1.2.3: Audio Description or Media Alternative (Prerecorded)](https://www.w3.org/TR/WCAG21/#audio-description-or-media-alternative-prerecorded) (A)Provide alternatives for pre-recorded synchronized audio/video | Supports (N/A) | There is no pre-recorded synchronized audio/video content. |
| [1.2.4: Captions (Live)](https://www.w3.org/TR/WCAG21/#captions-live) (AA)Provide captions for live audio in synchronized audio/video. | Supports (N/A) | There is no synchronized audio/video content nor live audio. |
| [1.2.5: Audio Description (Prerecorded)](https://www.w3.org/TR/WCAG21/#audio-description-prerecorded) (AA)Provide an audio description of pre-recorded video. | Supports (N/A) | There is no pre-recorded video content. |
| [1.4.2: Audio Control](https://www.w3.org/TR/WCAG21/#audio-control) (A)Audio can be paused and stopped, or the audio volume can be changed. | Supports (N/A) | No pages feature audio that plays automatically.  |
| [2.2.2: Pause, Stop, Hide](https://www.w3.org/TR/WCAG21/#pause-stop-hide) (A)Users can stop, pause, or hide moving, blinking, scrolling, or auto-updating information. | Supports (N/A) | There is no moving, scrolling, or auto-updating information for which the criterion is applicable. |

### Usability

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| **WCAG 2.1****Checkpoint** | **Conformance Level** | **Remarks** |
| [2.2.1: Timing Adjustable](https://www.w3.org/TR/WCAG21/#pause-stop-hide) (A)Users are warned of time limits shorter than 20 hours and time limits can be turned off or extended | Supports (N/A) | There is no session timeout shorter than 20 hours. Note: Users are informed of invalidated sessions (e.g. due to time limits longer than 20 hours) with a message: “Your session was terminated due to inactivity or an application restart”. The message is accompanied by a link to refresh the session. |
| [2.4.5: Multiple Ways](https://www.w3.org/TR/WCAG21/#multiple-ways) (AA)More than one way is available to navigate to other web pages. | Supports | While there is no sitemap or other comprehensive index of pages, typically pages (except steps/results of a process) may be located in multiple ways. For example, filters within Clinician Queues and search functionality via Patient Search may assist in locating various patient detail content/pages; in Pathway Navigation, links to Pathway Viewer and Pathway Flowchart documents are presented accordingly for the relevant Pathway.  |
| [3.2.2: On Input](https://www.w3.org/TR/WCAG21/#on-input) (A) Changing the setting of a checkbox, radio button, or other UI component does not trigger unexpected changes in context. | Partially supports | User input, such as changing the values of form elements, does not initiate unexpected actions or changes in context.Note: In Pathway Navigator, making all required selections for a step/page may occasion a change in context, despite the presence of a “Next” button. In Trial Management and Regimen Explorer, perusing the combobox filter list via keyboard (up/down arrow keys) immediately selects and activates a filter value, initiating potentially significant changes in main page content (information presented in table) that are not announced by AT.**Exceptions:*** Clinician Queues: Radio inputs in "Plan of Care" modal containers – Arrow key selection of radio options may occasion an unexpected form submission; enter key may also unexpectedly dismiss modal during form submission. (Forms work more predictably with tab focus and spacebar selection.)
* Clinic Schedule: Department select – Up/down arrow key navigation of select (jump menu) options initiates a context change/page refresh that unexpectedly resets keyboard focus to the beginning of the page
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| [3.2.3: Consistent Navigation](https://www.w3.org/TR/WCAG21/#consistent-navigation) (AA)Navigation menus are in the same location and order on every web page. | Supports | Navigation menus are consistent across pages. For example, Main navigation links in the header are consistent across pages, occurring in the same order; sub-page navigation (or analogous tablists) are also consistently positioned across pages. |
| [3.3.4: Error Prevention (Legal, Financial, Data)](https://www.w3.org/TR/WCAG21/#error-prevention-legaufinanciaudata) (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) | There are no submissions which require legal or financial commitments.  |

### Mobile User Experience

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| **WCAG 2.1****Checkpoint** | **Conformance Level** | **Remarks** |
| [1.3.4 Orientation](https://www.w3.org/TR/WCAG21/#orientation)) (AA)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 | Pages do not restrict view and operation of content to a single orientation. |
| [2.5.1 Pointer Gestures](https://www.w3.org/TR/WCAG21/#pointer-gestures) (A)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) | Pages do not utilize or require multipoint or path-based gestures for any functionality. |
| [2.5.2 Pointer Cancellation](https://www.w3.org/TR/WCAG21/#pointer-cancellation) (A)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 interactive content functions through the Up-Event, allowing users to potentially move their pointer off the component to cancel. |
| [2.5.4 Motion Actuation](https://www.w3.org/TR/WCAG21/#motion-actuation) (A)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 that utilizes device or user motion. |