VPAT Accessibility Conformance Report

(Based on ITI VPAT©)

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| **Name of Product** | **ClinicalKey Student Clinical Cases (CKSCC)** |
| **Date Last Updated** | **June 14th, 2024** |
| Completed by | Madison Russell (Digital Accessibility Team) |
| **Applicable Standards/Guidelines** | This document rates Clinical Key Student Clinical Cases according to the W3C WCAG 2.1 A and AA requirements. |
| **Contact for More Information** | Elsevier Digital Accessibility Team [accessibility@elsevier.com](mailto:accessibility@elsevier.com?subject=Accessibility%20and%20ScienceDirect) |
| **Testing Tools and Methods** | **Hands-on keyboard operation Firebug/Code inspection JAWS 17 on Chrome V 108 on Windows 10 NVDA screen reader v2022.1 Wave Extension aXe Extension for Chrome**  **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** | Home, Browse Cases, Performance, My Saved, Case Summary, Case Dialogue |
| **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** |
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| 1.1.1 Non-text Content | A | 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 | Partially supports |
| 1.3.4 Orientation (2.1) | AA | Supports |
| 1.3.5 Identify Input Purpose (2.1) | AA | Supports |
| 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 | Supports |
| 1.4.11 Non-Text Contrast (2.1) | AA | Partially supports |
| 1.4.12 Text Spacing (2.1) | AA | Partially 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 | Supports |
| 2.2.2 Pause, Stop, Hide | A | Supports |
| 2.3.1 Three Flashes or Below Threshold | A | Supports (N/A) |
| 2.4.1 Bypass Blocks | A | Supports |
| 2.4.2 Page Titled | A | 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 | 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 | Partially 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 | Supports |
| 3.3.3 Error Suggestion | AA | Supports |
| 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 | Partially supports |

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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) | Supports | ClinicalKey Student Clinical Cases non-text content contains text alternatives |
| [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 | Partially supports | Most instructions provided for understanding and operating content do not rely solely on sensory characteristics of components such as shape, size, visual location, orientation, or sound.  **Exceptions:**  Case Dialogue: instructions say to “click the record icon” while record icon is not the accessible name of the component |
| [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 | Most content on CKSCC does not use color only to convey meaning.  **Exceptions:**  Global: Color only is used to indicate that text is a link  Performance: use of color only in spider chart to represent accuracy |
| [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 within CKSCC has a color contrast of at least 4.5:1.  **Exceptions:**  Case Dialogue: continue button has a contrast ratio of 2:1 on focus, “Write your response here…” placeholder text has a contrast ratio of 3.2:1, View Chart button has a contrast ratio of 2:1 on focus, View Results button has a contrast ratio of 2:1 on focus |
| [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 | **Exceptions:**  Home: “Welcome to Clinical Cases” header is completely obscured when text is resized to 200%  Performance: table data becomes jumbled and obscured when text is resized  Case Summary: learning outcomes list text runs together and becomes difficult to read when text is resized to 200%  Case Dialogue: important information about the patient is obscured when text is resized |
| [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 | CKSCC pages do not contain images of text. |
| [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. | Supports | Content can be presented without loss of information when magnified. |
| [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). | Partially supports | Overall CKSCC provides good contrast between graphical objects and backgrounds.  **Exceptions:**  Performance: yellow color in graphs on white background have a color contrast ratio of 1.5:1, blue color in graphs on white background have a color contrast ratio of 2.1:1, green color in graphs on white background have a color contrast ratio of 2.3:1, light blue color in spider chart has a contrast ratio of 1.1:1  Case Dialogue: “Write your response here…” input border has a contrast ratio of 1.4:1 |
| [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. | Partially supports | Most text-based CSS settings within CKSCC can be changed to certain minimum values without loss of content or functionality.  **Exceptions:**  Performance: when text-based CSS settings are changed some information within “specialty case attempt volume” becomes partially obscured |
| [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 | CKSCC contains little content that appears on hover or focus. |
| [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) | CKSCC does not contain flashing content. |
| **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 | Supports | The correct reading sequence can be programmatically determined on CKSCC pages. |
| [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 | Overall ClinicalKey Student Clinical cases provides keyboard access to most of the interactive content.  **Supporting Remarks:**  Navigation is fully keyboard operable.  **Exceptions:**  Home: CK Student Resources is not keyboard operable  Performance: “specialty case attempt volume” information button is not reachable via keyboard, “clinical reasoning accuracy” information button is not reachable via keyboard, “condition volume” information button is not reachable via keyboard  My Saved: delete saved case button is not reachable via keyboard  Case Dialogue: Suboptimal information button is not reachable via 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 | There are no keyboard traps within CKSCC. |
| [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) | CKSCC does not have any keyboard shortcuts using single keys. |
| [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 | Overall CKSCC users can tab through the interface in a logical order, where elements receive focus from top to bottom, left to right.  **Exceptions:**  Case Dialogue: focus jumps to the top of the page rather than moving to the new section when selecting investigations/differentials/treatments |
| [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 CKSCC page elements have a visible focus indicator.  **Exceptions:**  Home: no visible focus on cases under “By specialty”  My Saved: no visible focus on cases  Case Summary: no visible focus on cases in “similar cases by specialty” |
| [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 UI components on CKSCC do not trigger unexpected actions when receiving focus.  **Exceptions:**  Home: available cases changes when menu items are focused in tablist menu triggering unexpected actions |
| **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 | On ClinicalKey Student Clinical cases pages, information, structure, and relationships can be mostly programmatically determined.  **Exceptions:**  Browse Cases: <li> elements are not contained within <ul> or <ol>  Performance: “Clinical case trends” is a visual heading but not a semantic heading, “all clinical cases” is a visual heading but not a semantic heading, right-side list of categories (“emergency”, “family medicine”, “internal medicine”, etc) is visually grouped as a list but is not semantically in a list structure, specialty headings (“emergency trends”, etc) is visually a heading but not a semantic heading  Case Summary: “Learning outcomes” is visually a heading but not a semantic heading  Case Dialogue: Treatments Outcome learning points (“behavioral therapy”, “electrolyte monitoring”, etc) are visual headings but not semantic headings |
| [2.4.1: Bypass Blocks](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-skip) (A)  Users can bypass repeated blocks of content. | Supports | “Skip to main content” button appears on all pages |
| [2.4.6: Headings and Labels](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-descriptive) (AA)  Headings and labels are clear and consistent. | Supports | Pages on CKSCC have clear and consistent headings and labels |
| [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 | All pages on CKSCC have the language of the page specified, using lang=”EN”. |
| [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) | Page content on CKSCC is in the same language, English. |
| [4.1.1: Parsing](http://www.w3.org/TR/WCAG20/#ensure-compat-parses) (A)  Use valid, error-free HTML | Supports | Page elements have complete start and end tags, elements are nested according to their specifications, elements do not contain duplicate attributes, and IDs are unique. |
| **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 | CKSCC provides some input fields pertaining to the end user. |
| [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 | Supports | CKSCC pages have a title that describes the topic or purpose of the page. |
| [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 have descriptive and unique names.  **Exceptions:**  Browse Cases: “show more” links all have the same name and are not descriptive or unique, filter numbers have names that are not descriptive or unique  Case Dialogue: “View in patient chart” links are repeated multiple times and do not have descriptive or unique names |
| [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 | UI components with labels that include text have an accessible name that includes that text. |
| [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 identified consistently and on every page. |
| [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 | ClinicalKey Student Clinical cases identifies input errors in a variety of ways including text which appears below form inputs, popups, and alerts. |
| [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. | Supports | Form inputs provide an accessible name using the <label> tag or aria-label. |
| [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 | Suggestions for valid input are clear and easy to understand. |
| [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 | The name, role, and value can be programmatically determined for most CKSCC components.  **Exceptions:**  Home: interactive controls are nested and may not work with certain assistive technology  Case Dialogue: missing aria-expanded on accordions |
| [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. | Partially supports | CKSCC uses some status messages to alert the user that a change was successful.  **Exceptions:**  Case Dialogue: loading in patient chart is not announced to screenreader users, messages between user and senior clinician are not announced to screenreader users as they appear |
| **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) | There is no pre-recorded audio-only or video-only content on the site. |
| [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 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 | Auto-playing videos are able to be paused by the user. |
| **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 | Supports | ClinicalKey Student Clinical cases does not have a session timeout. |
| [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. | Supports | CKSCC contains more than one way to navigate to other web pages. |
| [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 | CKSCC pages do not trigger unexpected changes in context when changing the setting of a checkbox, radio button, or other UI component. |
| [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 | CKSCC’s navigation menus are in the same location and order on every page. |
| [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 on CKSCC does not restrict 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) | CKSCC does not contain 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 |  |
| [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) | CKSCC does not contain motion actuation. |