

Feature Specification: RenalInfoLK Web - WordPress Block Theme

Feature Branch: 001-wordpress-block-theme

Created: 2025-11-11

Status: Draft

Input: User description: "Convert the provided design files (#screen.png / #codes.html) into a fully functional WordPress block theme (not a classic theme). Project Description: Develop a professional, pixel-perfect, and mobile-responsive WordPress theme for a medical knowledge-sharing platform focused on pediatric nephrology, designed to engage both patients and healthcare professionals."

Clarifications

Session 2025-11-11

- Q: Mobile menu implementation style? → A: Slide-in side panel (drawer) from right with backdrop, dismissible by tapping outside
- Q: Dark mode support scope and implementation? → A: Full dark mode with user toggle switch in header (saves preference in localStorage/cookies)
- Q: Icon system implementation approach? → A: Include Material Symbol SVGs as inline SVG in WordPress blocks (no external CDN dependency)
- Q: Search functionality behavior and results display? → A: Standard WordPress search (submit redirects to search.php template with full results page)
- Q: Archive grid layout configuration? → A: Responsive CSS Grid with auto-fill (adjusts columns based on viewport: 1-4 columns dynamically)

User Scenarios & Testing (*mandatory*)

User Story 1 - Site Administrator Theme Installation (Priority: P1)

A site administrator needs to install and activate the RenalInfoLK Web theme to establish the visual identity and structure for their medical knowledge-sharing platform.

Why this priority: This is the foundational requirement - without successful installation and activation, no other functionality is accessible. It validates the theme package integrity and WordPress compatibility.

Independent Test: Can be fully tested by uploading the theme ZIP file via Appearance → Themes → Add New, activating it, and confirming the site displays without errors. Delivers a functional website with the RenalInfoLK design applied.

Acceptance Scenarios:

1. **Given** a WordPress 6.7+ installation, **When** administrator uploads the theme ZIP file, **Then** the theme appears in the Themes library with correct metadata (name, version, description, screenshot)
2. **Given** the theme is uploaded, **When** administrator clicks "Activate", **Then** the theme activates successfully without PHP errors or warnings

3. **Given** the theme is activated, **When** administrator views the site frontend, **Then** the site displays with the medical platform design applied
 4. **Given** the theme is activated, **When** administrator accesses Appearance → Editor, **Then** the Site Editor opens successfully showing all templates and patterns
-

User Story 2 - Content Editor Creates Medical Content Pages (Priority: P1)

A content editor needs to create and customize pages about pediatric nephrology topics using the Full Site Editing interface without writing code.

Why this priority: Core content creation is essential for a medical knowledge-sharing platform. Editors must be able to publish medical information easily while maintaining professional presentation and accessibility standards.

Independent Test: Can be fully tested by creating a new page in the Site Editor, adding medical content blocks (headings, paragraphs, images, lists), customizing colors/typography via the interface, and publishing. Delivers immediate value by enabling content publication.

Acceptance Scenarios:

1. **Given** an editor is logged in, **When** they create a new page in Site Editor, **Then** they can select from available block patterns for medical content layout
 2. **Given** a page is being edited, **When** editor adds heading and paragraph blocks, **Then** the typography follows the theme's medical-professional styling automatically
 3. **Given** editor is customizing content, **When** they change colors via the color palette, **Then** changes apply immediately and maintain WCAG AA contrast ratios
 4. **Given** a page with medical images, **When** editor adds images with captions, **Then** images display responsively across desktop, tablet, and mobile viewports
 5. **Given** a completed page, **When** editor clicks "Publish", **Then** the page displays on the frontend with pixel-perfect design matching the reference
-

User Story 3 - Patient Visitor Accesses Medical Information on Mobile (Priority: P1)

A patient or parent searches for pediatric nephrology information on their mobile device and needs to read content clearly with easy navigation.

Why this priority: Mobile responsiveness is critical for healthcare information accessibility. Many patients access medical information on smartphones, and poor mobile experience can prevent access to potentially critical health information.

Independent Test: Can be fully tested by accessing the site on mobile devices (320px-768px viewports), navigating between pages, and reading content. Delivers immediate patient value through accessible information.

Acceptance Scenarios:

1. **Given** a patient visits the site on mobile (375px viewport), **When** the homepage loads, **Then** the header, navigation, and hero content display correctly without horizontal scrolling
-

2. **Given** a mobile visitor, **When** they tap the navigation menu, **Then** a mobile-optimized menu opens with touch-friendly targets (minimum 44x44px)
 3. **Given** a patient reading a medical article on mobile, **When** they scroll through content, **Then** text remains readable (minimum 16px font size) with appropriate line spacing
 4. **Given** a mobile visitor viewing images, **When** images load, **Then** appropriately sized images load (responsive images) without degrading page performance
 5. **Given** a patient on slow connection, **When** the page loads, **Then** critical content appears within 3 seconds with progressive enhancement
-

User Story 4 - Healthcare Professional Browses Articles Archive (Priority: P2)

A healthcare professional visits the site to find specific pediatric nephrology articles or research through the blog/article archive.

Why this priority: Healthcare professionals need efficient information discovery. A well-organized archive enables quick access to medical content, supporting the platform's goal of engaging medical professionals.

Independent Test: Can be fully tested by publishing multiple blog posts, visiting the archive page, filtering/searching content, and clicking through to individual articles. Delivers standalone value through content organization.

Acceptance Scenarios:

1. **Given** multiple published articles exist, **When** visitor navigates to the blog archive, **Then** articles display in a responsive CSS Grid layout (auto-fill, 1-4 columns dynamically based on viewport) with featured images, titles, excerpts, and publication dates
 2. **Given** the archive page is displayed, **When** visitor uses category filtering, **Then** articles filter dynamically by medical topic category
 3. **Given** a visitor viewing the archive, **When** they click an article title or featured image, **Then** they navigate to the full article single view
 4. **Given** the archive has many articles, **When** visitor scrolls to bottom, **Then** pagination controls appear for navigating additional pages
 5. **Given** a professional on desktop, **When** they view the archive, **Then** the layout displays in an optimal multi-column grid (3-4 columns on widescreen)
-

User Story 5 - Site Administrator Customizes Brand Colors (Priority: P2)

A site administrator needs to customize the theme colors to match organizational branding while maintaining medical professionalism and accessibility.

Why this priority: Brand consistency is important but secondary to core functionality. Customization enables organizations to align the theme with their visual identity without requiring code changes.

Independent Test: Can be fully tested by accessing Site Editor → Styles, modifying the color palette, applying changes, and verifying the site updates globally. Delivers standalone customization capability.

Acceptance Scenarios:

1. **Given** administrator is in Site Editor, **When** they navigate to Styles → Colors, **Then** they see the current color palette with clear labels (Primary, Secondary, Accent, etc.)
 2. **Given** the color palette is displayed, **When** administrator changes the primary color, **Then** all elements using that color update in real-time preview
 3. **Given** administrator selects new colors, **When** they save changes, **Then** the system validates that text/background combinations meet WCAG AA contrast ratios (4.5:1 for normal text, 3:1 for large text)
 4. **Given** custom colors are applied, **When** administrator views the frontend, **Then** all templates, patterns, and blocks respect the new color scheme
 5. **Given** administrator wants to revert changes, **When** they select "Reset to defaults", **Then** the original medical-professional color palette restores
-

User Story 6 - Content Editor Adds Call-to-Action Patterns (Priority: P3)

A content editor needs to add pre-designed call-to-action sections (appointment booking, newsletter signup, contact forms) to pages without building from scratch.

Why this priority: Enhances content creation efficiency but is not critical for MVP. Pre-designed patterns accelerate page building and ensure consistent design quality.

Independent Test: Can be fully tested by opening the pattern inserter, browsing CTA patterns, inserting one into a page, customizing text/buttons, and publishing. Delivers standalone value through rapid page assembly.

Acceptance Scenarios:

1. **Given** an editor is editing a page, **When** they open the pattern inserter, **Then** they see a "Call to Action" category with multiple pre-designed patterns
 2. **Given** CTA patterns are displayed, **When** editor previews a pattern, **Then** they see a visual preview of the layout before inserting
 3. **Given** a pattern is inserted, **When** editor clicks on text or buttons, **Then** they can edit content inline without affecting the layout structure
 4. **Given** a CTA pattern with a button, **When** editor customizes button text and link, **Then** the button maintains the theme's professional styling
 5. **Given** a CTA pattern is published, **When** viewed on frontend, **Then** the pattern displays responsively with appropriate spacing and visual hierarchy
-

User Story 7 - Site Administrator Configures SEO-Friendly Templates (Priority: P3)

A site administrator needs to ensure that all page types (homepage, articles, archive, contact) output proper semantic HTML and structured data for search engines.

Why this priority: SEO optimization is important for long-term discoverability but not critical for initial launch. Proper semantic markup improves search rankings for medical content.

Independent Test: Can be fully tested by publishing pages, running them through HTML validators and SEO audit tools (e.g., Lighthouse, schema.org validator), and verifying proper meta tags and structured data. Delivers standalone SEO value.

Acceptance Scenarios:

1. **Given** a published article page, **When** examined in browser dev tools, **Then** the HTML uses semantic elements (article, section, header, footer, nav) appropriately
 2. **Given** an article page is crawled, **When** search engines parse the page, **Then** structured data (Schema.org Article markup) is present with correct properties (headline, author, datePublished, description)
 3. **Given** any template, **When** validated with W3C validator, **Then** the HTML output contains zero errors and maintains accessibility tree integrity
 4. **Given** the homepage, **When** inspected for meta tags, **Then** proper Open Graph and Twitter Card meta tags are present for social sharing
 5. **Given** image-heavy pages, **When** analyzed for performance, **Then** all images include proper alt attributes for screen readers and SEO
-

Edge Cases

- What happens when the theme is activated on WordPress versions below 6.7 (minimum requirement check and graceful error message)?
- How does the theme handle extremely long medical terminology in headings that might break layout on narrow viewports?
- What happens if a user uploads very large images (>5MB) without optimization - does the theme maintain page load performance?
- How does the site display when JavaScript is disabled in the browser (progressive enhancement)?
- What happens when a user tries to customize colors that create insufficient contrast ratios (validation and warning)?
- How does the theme handle right-to-left (RTL) language support if needed for international medical audiences?
- What happens when content editors accidentally delete critical template parts (header/footer) - can they be restored?
- How does the archive template handle zero published articles (empty state messaging)?
- What happens when very long navigation menus exceed horizontal space (overflow handling, mega menus, or responsive collapse)?
- How does the theme display on very large viewports (>1920px) - does content remain centered and readable?

Requirements (*mandatory*)

Functional Requirements

Theme Structure & Configuration

- **FR-001:** Theme **MUST** include complete metadata in style.css (Theme Name: "RenallInfoLK Web", Description, Author, Version 1.0.0, Requires at least: 6.7, Tested up to: 6.8, Requires PHP: 7.2, License:

GPL-2.0-or-later)

- **FR-002:** Theme MUST include a functions.php file with minimal PHP that only registers theme support, enqueues assets, and registers block patterns/styles
- **FR-003:** Theme MUST include theme.json as the primary configuration file defining colors, typography, spacing, layout settings, and block customizations
- **FR-004:** Theme MUST include a screenshot.png (1200x900px) showing the homepage design for the WordPress themes directory
- **FR-005:** Theme MUST include a README.txt following WordPress theme directory format with installation instructions, changelog, and credits

WordPress Block Theme Standards

- **FR-WP-001:** theme.json MUST validate against WordPress 6.8 schema (<https://schemas.wp.org/wp/6.8/theme.json>) with version 3
- **FR-WP-002:** All templates MUST use block markup exclusively (format) with no custom HTML outside WordPress blocks
- **FR-WP-003:** Theme MUST include mandatory templates: index.html (required), home.html (blog homepage), single.html (blog post), page.html (static pages), archive.html (blog archive), search.html (search results), 404.html (not found)
- **FR-WP-004:** functions.php MUST use only WordPress core hooks (after_setup_theme, wp_enqueue_scripts, init) and avoid custom post types, taxonomies, or complex logic
- **FR-WP-005:** Theme MUST register block patterns using WordPress pattern registration API with proper categories and descriptions
- **FR-WP-006:** Theme MUST define template parts in /parts/ directory (header.html, footer.html) and register them in theme.json templateParts section
- **FR-WP-007:** Theme MUST support Full Site Editing (FSE) with all templates and template parts editable in Site Editor
- **FR-WP-008:** Theme MUST follow WordPress naming conventions (text domain: renalinfo-web, function prefixes: renalinfo_web_)

Design & Visual Fidelity

- **FR-010:** Theme MUST match the reference design files (#screen.png / #codes.html) with maximum 5px spacing deviation at 1920px desktop viewport for layout, spacing, typography, and visual hierarchy; maintain proportional relationships at other viewports using fluid spacing
- **FR-011:** Theme MUST implement the reference design's color palette in theme.json settings.color.palette with semantic names (primary, secondary, accent, neutral-light, neutral-dark, background, foreground)
- **FR-012:** Theme MUST use the reference design's typography including font families, font sizes, font weights, line heights, and letter spacing defined in theme.json
- **FR-013:** Theme MUST implement responsive spacing scale in theme.json settings.spacing.spacingSizes matching the design's spacing system (using clamp() for fluid spacing)
- **FR-014:** Theme MUST include all UI components from the reference design as reusable block patterns (hero sections, call-to-action blocks, content sections, testimonials, contact forms)

Responsiveness & Device Support

- **FR-020:** Theme MUST display correctly on mobile devices (320px-767px viewport width) with touch-friendly navigation and readable text
- **FR-021:** Theme MUST display correctly on tablet devices (768px-1023px viewport width) with optimized layout for medium screens
- **FR-022:** Theme MUST display correctly on desktop devices (1024px+ viewport width) with multi-column layouts and expanded navigation
- **FR-023:** Theme MUST use fluid typography with clamp() values in theme.json to scale text smoothly across all viewport sizes
- **FR-024:** Theme MUST implement responsive images through WordPress's srcset/sizes attributes for optimal performance on all devices
- **FR-025:** Theme MUST ensure touch targets (buttons, navigation links) are minimum 44x44px on mobile devices for accessibility

Accessibility (WCAG 2.1 Level AA)

- **FR-030:** Theme MUST maintain minimum 4.5:1 contrast ratio for normal text (under 24px) and 3:1 for large text (24px+) across all color combinations
- **FR-031:** Theme MUST use semantic HTML5 elements (header, nav, main, article, section, footer, aside) for proper document structure
- **FR-032:** Theme MUST include proper ARIA labels and roles for interactive elements (navigation menus, buttons, form controls)
- **FR-033:** Theme MUST ensure all functionality is keyboard-accessible with visible focus indicators on interactive elements
- **FR-034:** Theme MUST include skip-to-content link for keyboard users to bypass navigation
- **FR-035:** Theme MUST ensure all images have appropriate alt attributes (decorative images use empty alt="")
- **FR-036:** Theme MUST support screen readers with proper heading hierarchy (h1, h2, h3) and landmark regions
- **FR-046:** Theme MUST respect prefers-reduced-motion CSS media query by disabling or significantly reducing animation durations (set to 0.01s) for mobile menu transitions, dark mode toggle effects, and any decorative animations when user has motion reduction preferences enabled

Performance & Optimization

- **FR-040:** Theme MUST load with zero render-blocking resources in the critical rendering path (CSS inlined or deferred, no blocking JavaScript)
- **FR-041:** Theme MUST achieve Lighthouse performance score of 90+ on desktop and 80+ on mobile for typical content pages
- **FR-042:** Theme MUST implement lazy loading for images below the fold using WordPress native lazy loading
- **FR-043:** Theme MUST minimize CSS and JavaScript file sizes (combined CSS under 50KB gzipped, combined JS under 30KB gzipped before additional compression)
- **FR-044:** Theme MUST use web-optimized font formats (WOFF2) and implement font-display: swap for faster text rendering
- **FR-045:** Theme MUST avoid layout shifts by defining width and height attributes on images and reserving space for dynamic content

Content Templates & Patterns

- **FR-050:** Theme MUST include a homepage template with hero section, featured content areas, and call-to-action sections matching the reference design
- **FR-051:** Theme MUST include single post template optimized for long-form medical articles with proper typography and readability
- **FR-052:** Theme MUST include page template for static pages (About, Contact, Services) with flexible content areas
- **FR-053:** Theme MUST include archive template displaying blog posts in responsive CSS Grid layout (auto-fill, 1-4 columns dynamically adjusting to viewport) with featured images, excerpts, and metadata
- **FR-054:** Theme MUST include search results template with clear result presentation and zero-results messaging
- **FR-055:** Theme MUST include 404 error template with helpful navigation back to main site areas
- **FR-056:** Theme MUST include reusable block patterns for: header variations (2-3 options), footer variations (2-3 options), hero sections (3+ designs), call-to-action blocks (3+ designs), content sections (4+ layouts), testimonial sections, contact/form sections
- **FR-057:** Theme MUST categorize patterns logically (Headers, Footers, Heroes, CTAs, Content, Forms) in the pattern inserter

Navigation & Menus

- **FR-060:** Theme MUST include responsive navigation menu that collapses to mobile menu icon on screens below 768px
- **FR-061:** Theme MUST support WordPress navigation menus with proper nesting (dropdown submenus up to 2 levels deep)
- **FR-062:** Theme MUST include mobile menu functionality with slide-in side panel (drawer) from right, backdrop overlay, smooth open/close animation, and dismissible by tapping outside or close button
- **FR-063:** Theme MUST highlight active page in navigation menu for user orientation

SEO & Structured Data

- **FR-070:** Theme MUST output semantic HTML that passes W3C HTML validation with zero errors
- **FR-071:** Theme MUST include proper document structure (DOCTYPE, lang attribute, meta charset, viewport meta tag)
- **FR-072:** Theme MUST support Yoast SEO and Rank Math SEO plugins without conflicts
- **FR-073:** Theme SHOULD implement basic Schema.org structured data for articles OR document that SEO plugins will handle structured data (recommended approach for flexibility)

Customization & Extensibility

- **FR-080:** Theme MUST allow color palette customization through Site Editor → Styles → Colors with real-time preview
- **FR-081:** Theme MUST allow typography customization through Site Editor → Styles → Typography (font family, size, weight, line height)
- **FR-082:** Theme MUST allow spacing customization through Site Editor → Styles → Layout (contentSize, wideSize, padding)

- **FR-083:** Theme MUST support style variations (alternate color schemes) stored in /styles/ directory as JSON files
- **FR-084:** Theme MUST implement dark mode toggle switch in header that saves user preference in localStorage (defaults to light mode if unavailable); applies dark-mode.json style variation via data-theme attribute on html element; no server-side persistence (client-only feature); gracefully degrades to light mode for users with JavaScript disabled
- **FR-085:** Theme MUST document customization points in README.txt for users wanting to extend the theme

Browser Compatibility

- **FR-090:** Theme MUST display correctly in Chrome/Edge (Chromium) latest 2 versions
- **FR-091:** Theme MUST display correctly in Firefox latest 2 versions
- **FR-092:** Theme MUST display correctly in Safari (macOS/iOS) latest 2 versions
- **FR-093:** Theme MUST implement progressive enhancement (core functionality works without JavaScript)

Assets & Resources

- **FR-100:** Theme MUST include all required assets from reference design (logos, icons, images) in /assets/ directory
- **FR-101:** Theme MUST optimize all image assets (compression, appropriate formats: WebP with PNG/JPEG fallbacks; image file sizes measured at 85% WebP quality with fallback PNG at 90% quality)
- **FR-102:** Theme MUST include Material Symbol icons as inline SVG within block patterns (no external CDN dependency), using icons: health_and_safety, article, play_circle, image, campaign, search, menu, arrow_forward, location_on, call, mail, family_restroom, medical_information
- **FR-103:** Theme MUST include proper licensing information for all third-party assets (fonts, images, icons) in README.txt, including Apache 2.0 license for Material Symbols
- **FR-104:** Theme MUST use CSS custom properties (variables) for consistent color and spacing values across stylesheets (measured post-gzip compression: gzip -9 compression level)

Key Theme Components

Templates (/templates/)

- **index.html:** Fallback template for all views; displays post loop with query loop block
- **home.html:** Blog homepage; features hero section, featured posts grid, and paginated post list
- **single.html:** Individual blog post view; optimized for long-form medical content with post title, featured image, content area, author bio, and related posts
- **page.html:** Static page template; flexible content area with full-width and constrained layouts
- **archive.html:** Blog archive/category view; displays posts in responsive CSS Grid layout (auto-fill, 1-4 columns) with filters and pagination
- **search.html:** Search results template; displays search query, result count, and results list with excerpts
- **404.html:** Error page; friendly message with search form and links to main sections

Template Parts (/parts/)

- **header.html:** Site header; includes logo, primary navigation menu, search form (standard WordPress search with submit to search.php), and dark mode toggle
- **footer.html:** Site footer; includes footer menu, social media links, copyright notice, and contact information
- **sidebar.html** (if applicable): Sidebar widget area for blog posts; includes recent posts, categories, and search

Block Patterns (/patterns/)

- **Hero Sections** (3+ variations): Full-width hero with heading, subheading, CTA buttons, background image/video
- **Call-to-Action Blocks** (3+ variations): Boxed CTA, banner CTA, inline CTA with buttons and supporting text
- **Content Sections** (4+ layouts): Two-column text/image, three-column features, testimonial grid, FAQ accordion
- **Header Variations** (2-3 options): Standard horizontal header, centered logo header, sticky header
- **Footer Variations** (2-3 options): Four-column footer, centered footer, minimal footer
- **Form Patterns:** Contact form layout, newsletter signup, appointment request form structure

Style Variations (/styles/)

- **Default (Medical Professional):** Primary style with medical-appropriate colors (blues, whites, greens) and professional serif/sans-serif typography
- **High Contrast:** Alternative color scheme with increased contrast for improved accessibility
- **Dark Mode:** Full dark mode implementation with inverted color scheme for low-light reading, activated via toggle switch in header

theme.json Key Sections

- **settings.color.palette:** Defines 13 colors (primary, primary-dark, secondary, green-blue, cta-yellow, accent, accent-dark, accent-text, background-light, background-dark, text-light, text-dark, footer-dark)
- **settings.typography.fontFamilies:** Defines primary font (body text) and heading font with proper font weights
- **settings.typography.fontSize:** Defines responsive font size scale (small, medium, large, x-large, xx-large) using clamp()
- **settings.spacing.spacingSizes:** Defines spacing scale (10, 20, 30, 40, 50, 60, 70, 80) using clamp() for fluid spacing
- **settings.layout:** Defines contentSize (680px), wideSize (1200px), and useRootPaddingAwareAlignments (true)
- **styles.blocks:** Customizes appearance of core blocks (core/button, core/heading, core/paragraph, core/image, core/navigation, core/post-template)
- **styles.elements:** Styles semantic elements (link, button, h1-h6)

Success Criteria (*mandatory*)

Measurable Outcomes

Installation & Activation

- **SC-001:** Theme successfully installs and activates on WordPress 6.7+ without PHP errors, warnings, or notices in debug mode
- **SC-002:** Theme passes WordPress Theme Check plugin validation with zero errors and zero warnings
- **SC-003:** Theme directory structure includes all required files (style.css, functions.php, theme.json, index.html, screenshot.png, README.txt) with proper content

Design Fidelity & Visual Quality

- **SC-010:** Homepage layout matches reference design with maximum 5px deviation in spacing and alignment when viewed at 1920px desktop viewport
- **SC-011:** Color palette matches reference design hex values exactly across all pages and components
- **SC-012:** Typography (font families, sizes, weights, line heights) matches reference design specifications within 1px/0.1em tolerance
- **SC-013:** All UI components from reference design (buttons, forms, cards, navigation) are accurately reproduced as block patterns

Responsiveness

- **SC-020:** Site displays without horizontal scrolling on viewports from 320px to 2560px width
- **SC-021:** All text content remains readable (minimum 16px effective size) on mobile devices (320px-767px viewports)
- **SC-022:** Navigation menu transitions to mobile menu icon below 768px viewport width with fully functional mobile menu
- **SC-023:** Images scale appropriately on all device sizes using responsive image techniques (srcset)
- **SC-024:** Touch targets (buttons, links) measure minimum 44x44px on mobile viewports

Accessibility (WCAG 2.1 Level AA)

- **SC-030:** All text/background color combinations achieve minimum 4.5:1 contrast ratio for normal text, verified using automated tools (WAVE, Axe DevTools)
- **SC-031:** Theme passes automated accessibility audit (Lighthouse Accessibility score 95+)
- **SC-032:** All site functionality (navigation, forms, content access) is operable using keyboard only without mouse
- **SC-033:** Screen reader testing confirms proper heading hierarchy and landmark regions throughout all templates
- **SC-034:** All images include appropriate alt text or empty alt attributes for decorative images

Performance

- **SC-040:** Homepage achieves Lighthouse Performance score of 90+ on desktop and 80+ on mobile on typical content (measured with WordPress default content: 5 published posts, 10 images total <1MB, no active plugins except WordPress core, tested using Lighthouse default throttling - Desktop: no throttling, Mobile: 4x CPU slowdown + 1.6 Mbps down)
- **SC-041:** First Contentful Paint (FCP) occurs within 1.5 seconds on simulated 3G connection

- **SC-042:** Largest Contentful Paint (LCP) occurs within 2.5 seconds on desktop and 3.5 seconds on mobile
- **SC-043:** Cumulative Layout Shift (CLS) remains below 0.1 across all pages
- **SC-044:** Total page weight (HTML + CSS + JS + images) remains under 1MB for typical homepage on first load (excluding user-added content)

WordPress Standards Compliance

- **SC-050:** theme.json validates successfully against WordPress 6.8 schema with zero errors using JSON schema validator
- **SC-051:** All templates use valid block markup that renders correctly in both Site Editor and frontend
- **SC-052:** Theme follows WordPress naming conventions (text domain matches theme slug, function prefixes consistent)
- **SC-053:** Theme passes WordPress Coding Standards checks using PHP_CodeSniffer with WordPress rulesets (PHPCS --standard=WordPress)
- **SC-054:** Theme includes proper internationalization (i18n) with translatable strings wrapped in translation functions

Full Site Editing Functionality

- **SC-060:** Site Editor opens successfully with all templates and template parts visible and editable
- **SC-061:** Users can customize colors via Site Editor → Styles → Colors and changes apply globally across all templates
- **SC-062:** Users can customize typography via Site Editor → Styles → Typography and changes apply globally
- **SC-063:** Block patterns appear in pattern inserter organized by category with accurate previews
- **SC-064:** Template parts (header, footer) can be edited independently and changes reflect across all pages using those parts

Content Creation Experience

- **SC-070:** Content editor can create a new page, add content blocks, and publish within 5 minutes without documentation
- **SC-071:** Block patterns insert correctly into pages with editable content and maintain layout integrity
- **SC-072:** All WordPress core blocks (paragraph, heading, image, button, columns, group) render correctly with theme styling

Browser Compatibility

- **SC-080:** Theme displays identically (within 2% visual difference) across Chrome, Firefox, Safari, and Edge latest versions
- **SC-081:** Theme functions correctly with JavaScript disabled (progressive enhancement - core content accessible)

SEO & Validation

- **SC-090:** Theme HTML output passes W3C HTML validator with zero errors

- **SC-091:** Theme is compatible with Yoast SEO and Rank Math plugins without JavaScript errors or style conflicts
- **SC-092:** Homepage includes proper meta tags (viewport, charset, Open Graph) when tested with social media debuggers

Documentation & Deliverables

- **SC-100:** Theme package includes complete README.txt with installation instructions, feature list, changelog, and credits
- **SC-101:** Theme includes code comments explaining customization points and any complex logic in functions.php
- **SC-102:** Theme includes deployment documentation (minimum: upload via Appearance → Themes → Add New → Upload Theme)
- **SC-103:** All third-party assets (fonts, images, icons) include proper license attribution in README.txt

Assumptions

Given the user's request to convert design files into a WordPress block theme, the following assumptions are made where specifications were not explicitly provided:

Design Assets

- **A-001:** Reference design files (#screen.png / #codes.html) contain complete visual specifications including colors, typography, spacing, and component designs
- **A-002:** Design files represent desktop viewport (1920px or 1440px) and mobile viewport designs are inferred using responsive design best practices
- **A-003:** All images, logos, and icons required from the reference design are available in web-optimized formats or can be extracted/recreated

WordPress Environment

- **A-010:** Target WordPress version is 6.7+ (current stable at time of creation)
- **A-011:** Standard WordPress installation without custom configurations or non-standard plugins is the deployment target
- **A-012:** PHP version 7.2+ is available on the hosting environment (WordPress minimum requirement)

Medical Platform Content

- **A-020:** Medical content will be primarily text-based articles, guides, and educational resources (not interactive medical tools or calculators)
- **A-021:** Target audiences (patients and healthcare professionals) require professional design but do not need role-based content restriction or access control
- **A-022:** Medical content does not require HIPAA compliance features (no patient data storage or secure messaging)
- **A-023:** Content will be primarily in English with potential for future translation (theme uses proper i18n practices)

Functionality Scope

- **A-030:** Theme provides visual structure and design; complex functionality (appointment booking, patient portals, e-commerce) will be handled by plugins if needed
- **A-031:** Forms (contact, newsletter, appointment request) will use block patterns for layout with form functionality provided by plugins (Contact Form 7, Gravity Forms, or WPForms)
- **A-032:** Search functionality uses standard WordPress native search with form submission to search.php template; advanced search filtering or AJAX live search would be added via plugins if needed in future
- **A-033:** Blog/article archive is sufficient for content organization; custom post types or advanced taxonomies are out of scope unless specified in design

Responsive Design

- **A-040:** Mobile breakpoint is 768px (standard industry practice)
- **A-041:** Tablet viewport range is 768px-1023px
- **A-042:** Desktop viewport starts at 1024px
- **A-043:** Responsive behavior for components not explicitly designed in reference files follows mobile-first progressive enhancement principles

Performance Targets

- **A-050:** Performance testing assumes typical shared hosting environment (not dedicated server or CDN configuration)
- **A-051:** Performance benchmarks assume reasonable content volume (homepage with 5-10 sections, blog posts 1000-3000 words, 3-8 images per page)
- **A-052:** Image optimization is applied to theme assets; content images added by users are assumed to be reasonably optimized or use WordPress image optimization plugins

Accessibility

- **A-060:** WCAG 2.1 Level AA is the target accessibility standard (industry standard for public websites)
- **A-061:** Color contrast ratios are validated against background colors defined in the theme; user-customized colors are their responsibility to validate
- **A-062:** Screen reader testing covers NVDA (Windows) and VoiceOver (macOS/iOS) as representative screen readers

Browser Support

- **A-070:** Browser support includes latest 2 versions of Chrome, Firefox, Safari, and Edge (representing 95%+ of web traffic)
- **A-071:** Internet Explorer 11 is not supported (Microsoft officially ended support January 2022)
- **A-072:** Mobile browser testing covers Safari iOS and Chrome Android as primary mobile browsers

Theme Naming & Branding

- **A-080:** Theme name "RenalInfoLK Web" implies organization name "RenalInfoLK" or "Renal Info LK"
- **A-081:** Theme slug will be "renalinfoLKweb" or "renalinfo-web" (kebab-case) for WordPress standards
- **A-082:** Text domain will match theme slug for internationalization

Development & Deployment

- **A-090:** Theme will be delivered as a ZIP file ready for upload via WordPress admin
- **A-091:** Development environment assumptions: local WordPress installation, modern code editor, browser dev tools, no build process required (pure block theme)
- **A-092:** Version control (Git) is used during development but not required for end-user deployment
- **A-093:** Theme does not require Node.js build process, Composer dependencies, or compilation steps

Content Strategy

- **A-100:** Homepage features hero section, featured content areas, and call-to-action for typical medical website needs (contact, appointments, newsletter)
- **A-101:** Blog/articles are the primary content type for medical knowledge sharing
- **A-102:** Static pages exist for About, Contact, Services, Resources (standard medical website information architecture)

These assumptions are documented to clarify scope and enable efficient development. Any assumption that conflicts with actual project requirements should be clarified before proceeding to planning and implementation phases.