



CLINICAL GESTALT SPECIFICATIONS



Virtually perfecting
clinical reasoning



ABOUT CLINICAL GESTALT

Clinical Gestalt is a cloud-based virtual patient platform developed to improve clinical reasoning for students, residents, fellows and those with certification/recertification needs.



SECURITY

Clinical Gestalt uses a data center and network architecture built to meet the requirements of the most security-sensitive organizations. This provides secure storage of author contributed files and multimedia.



SCALABILITY

Hosted on Amazon Web Services (AWS), Clinical Gestalt can achieve higher economies of scale through the use of shared hardware, application and auditing services.



REDUNDANCY

The framework for Clinical Gestalt is served through distributed data centers with secure backup solutions.



ACCESSIBILITY

Clinical Gestalt may be cached and served from the nearest AWS location providing speed and availability for the user.



LEARNERS

Trainees engage with virtual case scenarios created and reviewed by experienced medical professionals.



AUTHORS

Case contributors use their experience, teaching skills and creativity to improve clinical reasoning by authoring a virtual patient case and demonstrating their appreciation for the challenges of clinical medicine.



REVIEWERS

Case review allows a layer of oversight for each scenario presented to trainees. Reviewers add value to the platform through their critique and feedback about the appropriateness and quality of the case. These evaluations ensure that cases are appropriate for the trainee's level of training, the assigned medical science, and the assigned clinical specialty.



INSTITUTIONS

Institutions deploy the Clinical Gestalt platform to teach clinical reasoning and improve medical education across the medical education continuum. Case portfolios can be developed for each institution and the scholarly work of case authors can be used support the author's promotion and tenure.



ELEMENTS OF A VIRTUAL CASE

Individual **training levels** tailor case scenarios to specific groups for undergraduate, resident and post-residency medical education.

Search Terms Virtual cases are cataloged and organized by Medical Subject Heading (MeSH) terms and clinical specialties for ease of search by institutions and trainees. Diagnosis terms are based on the ICD-10 terminology.

Introduction and Prerequisites provide an understanding of how the case supports the trainee's education.

Encounters represent interactions within a case containing options that trainees may take to provide care for the virtual patient.

- **Clinical Vignettes** are part of each encounter and engage learners with stories to help understand the patient's initial or current situation.
- **Natural language processing** helps trainees find and select the best options for patient treatment.
- **Keyword searches** are used to create searchable options representing real-life scenarios for the virtual patient. Categories include history, physical examination, diagnostic test and interventions providing direction from the author.
- **Results, values,** and the author's clinical reasoning supplement each option to bring depth to each case and explain the impact of the trainee's decisions.
- **Importance indicators** let the trainee know how critical or dangerous a particular option is relative to the impact on the care of the patient.

The **Differential Diagnosis** function helps the trainee add, remove and reorder diagnoses.

Case Review allows the trainee to compare their decisions and differential diagnosis with those of the author once the virtual case is completed. A critique of the differential diagnosis is provided by the author.

Storyline: All selected options are added to a historical storyline to be reviewed anytime by the trainee. Trainees may reorder their options to approximate an ideal order.

Summary information gives brief overview of the case with key teaching points that the trainee should have learned.

CLINICAL GESTALT INTERFACE FEATURES

- Rich text editors for flexible formatting and ease of authoring
- Content clipboard for storing and transferring notes or multimedia
- Natural language search processing for effective search results
- Case duplication allows authors to rapidly create similar cases
- Author portal stores case drafts, history and completion rates

FUTURE SPECIFICATIONS

- **Single server sign-on (SSO)** will authenticate users with a single set of credentials for access to the institution as well as the Clinical Gestalt platform.
- **Institution branding:** Replace Clinical Gestalt's logo and colors with branding elements of the institution.
- **Portfolios:** Add multiple cases to an institutional portfolio.
- **Advanced Search:** Use case keywords to help your institution meet the requirement of accreditations such as the LCME, ACGME, etc.
- **Performance indicators:** See your trainee's performance relative to all trainees when 50 trainees have completed a case for a particular training level.
- **Analytics:** A research portal to evaluate how trainee's navigation and time spent with options is related to performance.
- **Machine learning** to evaluate how trainees use clinical reasoning.



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