CREDO - Clinical Rotation Evaluation and Documentation Organizer

http://credo.education
The Clinical Rotation Evaluation and Documentation Organizer (CREDO) is a fast, easy to use system to gather student patient encounters and use those entries to provide real time information and relevant review materials; all while documenting each student’s growing clinical portfolio.

The system provides data relevant to the medical school administration and of value for researchers.
Who are the stakeholders and what do they get?

• Medical students – A quantitative portfolio, review information, automated Procedure Logs.
• Preceptors – Enhances communication with students/chairs and documents experience when applying for privileges
• Administration – An assessment tool to identify the best and those that may need help, and a tool to make documenting student performance on clinical rotations easier and more efficient
• VCOM – Demonstrate uniformity in clinical experience as per accreditation bodies’ new requirements
• Faculty – A database that is a tremendous source of research topics
• Public – A public health surveillance tool for Appalachia and the South

Element 6.11: Comparability across Clinical Education Sites:

A COM must ensure that the curriculum includes comparable educational experiences and equivalent methods of assessment across all core clinical educational sites where students learn, ensuring all students achieve similar outcomes based on core educational learning objectives.
Navigate everywhere from the Welcome page

- Change your Account Settings, including Rotation and Site
- Confirm/change your Rotation and Site in the greeting
- Enter new Patient Encounters
- See what is being logged now
- Click here to access: Quick Start Guide video Instructions About Support (email developers) FAQs Statistics
- Access Procedure Logs
- Review Patient Encounters
Logging at patient encounter

Live demo
Status Dashboard

- Users: 2,455 Total
- Entries: 535,663 All Time
- Recent Activity: Past Fortnight
- Sites: 784
- Patients: 230,964
- Factors: 2,310
- Researchers: 29
Real-time student entries, summaries, map – automatically refreshes every 10 seconds

How much time does it take to make an entry?

How much time does it take to make an entry?
Navigate all user functions from the System Dashboard page

View system status:
- Real-time student entries, summaries, map
- Time graph of entries and statistics
- Time graph of students who are active

View/access what students see

View/access what Preceptors, DSME and Site Coordinators see

Many functions for Administrators

Functionality in Development
System Page

- Time graph of entries and statistics
- Time graph of students who are active
- Real-time student entries, summaries, map
User pages

- Information to prepare you for each Rotation
- Edit/review Entries
- Review your Rotation Statistics
- Review automated fulfillment of Procedure Logs
- Review OMM Logs
- Secure link to your school health records
- Review question performance summary
- Research Matcher

List of links:
- Rotation Primer
- My Entries
- My Metrics
- My Dashboard
- Procedure Logs
- OMS III OMM Logs
- OMS III Workshop Logs
- OMS IV OMM Logs
- My Immunizations
- My Test Bank
- My Research Profile
- Research Matcher
- MSPE Summary
Mentor pages

Preceptor evaluation form:
- Sent automatically to Preceptor for ease and security
- Access to each student’s entries and Procedure Log
- Electronic sign-off and submission

DSME and Site Coordinator summaries
of site’s students and their activities
Administrator pages

Automated email for certain entries
Request Preceptor Evaluations
Edit/enter review information
Add/edit new Rotation Sites
Create/send messages in CREDO
Create/edit user accounts
Reports for Admin Assistants
Reports for Admin Assistants
View any user data as if you were them
View/analyze all user Entries
View/analyze all user Entries over time

View Procedure Log fulfillment statistics by rotation site
View users/patients/entries statistics by rotation site
View users/patients/entries statistics by rotation

Valuable for COCA requirement for site comparison
Developer pages – things coming soon

Grid maker, editor, exporter – centralized grid maintenance

Procedure Log editor – centralized maintenance and links to Patient Encounter Diagnoses via ICD-10 codes

Student site evaluation electronic submission form

Users can log their Research Experiences

Board Review Questions triggered by Patient Encounter Entries

More accreditation stats reports

Internal adjustment of user rotations

Link out to secure Student Immunization Logs

Summary table of Learning Objectives fulfilled by Patient Encounter Diagnoses or Procedure; or lecture/reading

Learning Objectives editor – centralized maintenance and links to Patient Encounter Diagnoses via ICD-10 codes
Creating My Researcher Profile

Click if you want collaborators or to mentor students

Select basic, clinical or other

Free text description of your research interests and capabilities

Indications of previous mentoring

**RESEARCH PROFILE EDITOR**

The Research Matching system was created so that students and faculty can find research collaborators and mentors to advance their research agenda. All users can search the system or those with common interests, or with specific capabilities. Use this form to update your research interests to be included in the Research Matcher. Please be as thorough as possible, for others will find you by searching for specific keywords.

**YOUR PROFILE**

- **Accepting Collaborators and/or New Students to Mentor**

**Research Type**
- Basic

**Research Interests + Capabilities**

My research interests include: 1) development of computational biology and bioinformatics solutions for genetics, genomics and proteomics, 2) biomarker and drug target discovery in complex multi-genic disorders (cancer, heart disease, neurological disease), 3) text analytics and publication and medical ethics, 4) High Performance Computing especially scalable diversified systems, 5) new approaches to medical education including software and online learning, 6) translating findings into clinical diagnostics and therapeutics.

- **N° Students Actively Mentoring**: 20
- **N° Students Mentored To Date**: 100
- **N° Students incl. Co-Authors on Manuscripts**: 10

**SAVE**
The Research Matcher

Search free text for common interests

Headings are sortable

Click on user line to see details

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Campus</th>
<th>Group</th>
<th>Accepting/Seeking</th>
<th>Research Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costa, Blaise</td>
<td><a href="mailto:bcosta@vcom.vt.edu">bcosta@vcom.vt.edu</a></td>
<td>VCOM Virginia</td>
<td>Faculty</td>
<td>Yes</td>
<td>Basic</td>
</tr>
<tr>
<td>Roldan, Alicia</td>
<td><a href="mailto:aroldan@vcom.vt.edu">aroldan@vcom.vt.edu</a></td>
<td>VCOM Virginia</td>
<td>Admin</td>
<td>Yes</td>
<td>All of the Above</td>
</tr>
<tr>
<td>Rajagopalan, Govindarajan</td>
<td><a href="mailto:grajagopalan@vcom.vt.edu">grajagopalan@vcom.vt.edu</a></td>
<td>VCOM Virginia</td>
<td>Faculty</td>
<td>Yes</td>
<td>Basic</td>
</tr>
<tr>
<td>Sumpter, Cameron</td>
<td><a href="mailto:cs@cameronsumpter.com">cs@cameronsumpter.com</a></td>
<td>VCOM Virginia</td>
<td>Admin</td>
<td>No</td>
<td>Basic</td>
</tr>
</tbody>
</table>
The Research Matcher Profile Viewer

RESEARCHER DETAIL

Person: Enkemann, Steven
Email: senkemann@carolinas.vcom.edu
Research Type: Yes
Research Interests + Capabilities: Basic

Number Mentoring: Genetics, Genomics, and Gene Expression. My main research interests are in the areas of cancer and pharmacogenetics. I have worked with many types of big data technologies including microarrays, GWAS, and Next Generation Sequencing. While this is the current realm of my research, I also have extensive experience with microbial techniques (including viruses), tissue culture, molecular biology, and biochemical technologies. My early research work was on the regulation of gene expression, the organization of the nucleus, and the disruption of growth by oncogenes in cancer. I have spent many years developing new assays for both research and clinical use, as well as, establishing quality controls for handling clinical samples. This includes the collection and storage of clinical samples for proteomic or genomic analysis with whole ome technologies. I have developed many genetic assays for the analysis of clinical samples. My more recent research has been in the search for biomarkers for identifying and classifying cancers. This research includes looking for cell surface markers that are expressed in tumors and may be used for cancer detection or drug delivery. I have also looked for instructive classifications of tumor samples based on gene expression patterns. These include groups of coordinately expressed genes that suggest high or low activity for certain parameters such as growth, immune cell influx, NF-KappaB activity and others; groups of genes whose expression define actionable sub-groups of tumors; and patterns of gene expression that may define certain types of mutations in the tumor. Future work will expand on the knowledge of the heterogeneity of cancer and how this can be evaluated to identify new treatment groups. We will also be working on better understanding of the human genome and how variation between individuals influence the onset of disease and the activity of pharmacological agents.

Number Coauthors: 17
Filtering and mapping from User Entry Page

Click on Filter to select what you want to study.

Then click Map to view your filtered entries on a world map.

Two views – heat map and flags. Mouse over flag to see the ICD code details; click to view all entries at that location.

4,058 entries for diabetes
Site Accreditation Statistics

Every site (currently active or previous) has statistics as to the total number of users that have logged from that site, and the total number of entries and the average number of entries per user. This gives an indication of the relative performance for each site.

<table>
<thead>
<tr>
<th>Location</th>
<th>Count, Users</th>
<th>Count, Patients</th>
<th>Count, DIAG</th>
<th>Count, PROC</th>
<th>Count, DRUG</th>
<th>Average, DIAG</th>
<th>Average, PROC</th>
<th>Average, DRUG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuomey Healthcare System</td>
<td>11</td>
<td>3018</td>
<td>6479</td>
<td>524</td>
<td>4152</td>
<td>274.4</td>
<td>589.0</td>
<td>47.6</td>
</tr>
<tr>
<td>Mary Black Hospital</td>
<td>27</td>
<td>2875</td>
<td>4980</td>
<td>304</td>
<td>1524</td>
<td>106.5</td>
<td>184.4</td>
<td>11.3</td>
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<tr>
<td>Springs Memorial Hospital</td>
<td>10</td>
<td>2446</td>
<td>4118</td>
<td>274</td>
<td>1563</td>
<td>244.6</td>
<td>411.8</td>
<td>27.4</td>
</tr>
<tr>
<td>(Location Not Listed)</td>
<td>94</td>
<td>2659</td>
<td>4005</td>
<td>295</td>
<td>1413</td>
<td>28.3</td>
<td>42.6</td>
<td>3.1</td>
</tr>
<tr>
<td>Grand Strand Medical Center</td>
<td>13</td>
<td>1188</td>
<td>3227</td>
<td>161</td>
<td>2858</td>
<td>91.4</td>
<td>248.2</td>
<td>12.4</td>
</tr>
</tbody>
</table>

Click here to rank (largest to smallest) for any column.

Coming soon: Identification of sites (for each rotation) significantly above/below average in patients/student, significantly above/below average in Procedure Log fulfillment (a measure of what the school considers important to accomplish in a rotation).
Public Health Alerts

Set to check hourly, and send me an email if Zika, MRSA or if a Malignant neoplasm of the lung is logged

<table>
<thead>
<tr>
<th>ID</th>
<th>Name</th>
<th>Active</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Zika</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>MRSA</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Lung Cancer</td>
<td></td>
</tr>
</tbody>
</table>

Email is delivered to user who set the alert

**ICDILogger Alerts**
Review Facts and Board Questions Presented to Students triggered from Patient Encounter

### FACTOID MANAGER

This interface allows you to manage system factoids, which are shown to users when they log a relevant code. Create a new factoid using the 'Add' button or select a row to edit an existing factoid. Factoids are triggered by code expressions; simply enter the exact code (i.e., A01.1) or append a trailing percent symbol to act as a wildcard (i.e., Z01.1 will match Z01.1, Z01.11, Z01.110, etc...). Be aware that each code expression must be bound to a single type of code (i.e., diagnostic) and that an improper selection will result in it being shown for unintended codes or not at all.

### FACTOIDS (GLOBAL)

<table>
<thead>
<tr>
<th>ID</th>
<th>Area</th>
<th>Fact</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>SOAP</td>
<td>ARDS = acute onset, hypoxemia refractory to O2, b/l infiltrates on chest imaging, non cardiogenic pulmonary edema (no evidence of CHF aka PCWP &lt;18), abnormal PaO2/FiO2 ratio. Acute Respiratory Failure (J96.0) ARDS Ventilator Strategy: HIGH PEEP LOW tidal volumes, AVOID high FiO2. Use PEEP and RR to oxygenate vss. FiO2 and TV.</td>
</tr>
</tbody>
</table>

Search
Help is always available

- By submitting a Support request through the App
- Instructions and Quick Start Users Guide through the App
- The primary support person is Araba Wubah, wubah@wlu.edu, 540 449-5503.
- Or by contacting developers:
  - Fred Rawlins (clinical issues) frawlins@vcom.edu, 540 520-5475
  - Skip Garner (systems/coding issues) skipgarner@gmail.com, 214 924-8364
  - Cameron Sumpter (IT issues) cs@cameronsumpter.com, 540 692-9267
Happy Logging

And Thank You