



ecds
Emergency Care
Documentation Systems
Empower Version



A Cure for the common chart
Multi-System Relief for your EDs Aches and Pains

**A Comprehensive Report
Handwritten and other Electronic Charting
Versus
ECDS Empower System**

Introducing The ECDS Empower System

ECDS-*The Cure for the Common Chart*

The Emergency Department is the gateway to the hospital ... and its success

The Emergency Department is a critical source of patient procurement and generates about ½ of hospital admissions; the E.D. is essential to a hospital's overall success. Administrators and medical staff work tirelessly to deliver quality care despite enormous operational, financial, compliance and other constraints. However, there is a key systematic barrier that inhibits even the most capable administrators and staff who strive for progress in the E.D. – the handwritten medical record.

The Handwritten chart is at the heart of many of today's Emergency Department challenges.

The hand-written medical chart is like a blocked artery in the heart of today's Emergency Department. It is a constant barrier to progress in seven principal areas.

1. ***Accurate and Complete Documentation*** – Handwritten charts are usually illegible and incomplete.
2. ***Instant Communication and Team Efficiency*** – The handwritten chart slows patient flow and impedes team communication due to the inability to share real time information and increases staff workload through redundant documentation.
3. ***Efficient and Full Reimbursement*** – Handwritten charts burden physicians and nurses to recall and document minutia required for maximum reimbursement; lack of documentation forces down-coding of ED charts, thus lowers reimbursement.
4. ***100% Government Compliance*** – Handwritten charts make it impossible to provide consistent quality and thoroughness of documentation.
5. ***Malpractice Liability & Risk Management*** – Handwritten charts are illegible and incomplete, thus rendering 35-40% of medical malpractice cases indefensible even when quality medical care was provided.
6. ***Operational & Quality Improvement*** – Handwritten charts require tedious, incomplete, and costly chart review in order to analyze operational and quality studies.
7. ***Prescription & Discharge Management*** – Handwritten charts require additional systems to reduce prescription errors and handle time-consuming discharge instructions.

Each of these deficiencies directly or indirectly impedes timely, cost-efficient and high quality patient care.

With all the advances in Emergency Medicine, E.D. management has been hobbled by an archaic charting and communication system for the past 25 years ... until now. It's time to unveil not just a digital solution, but a comprehensive solution that addresses the challenges that face everyone in the E.D. - administrators, physicians, nurses, regulators, lawyers and, most of all, patients. Whereas the handwritten chart blocks the vital flow of information throughout the E.D., the ECDS Empower System is the one clot-busting multi-functional solution that can improve E.D. performance across a number of areas.

Introducing the ECDS EMPOWER System. The Superior Prescription for Multi-Functional Performance.

The ECDS Empower system is a multi-functional software and medical team communication system that substantially improves the performance of the E.D. ECDS Empower is a Windows-based system that runs so effortlessly on PCs, wireless laptops or tablet computers that there's 100% usage by the physicians and nurses in emergency departments with ECDS.

The ECDS Empower system is the *only* electronic documentation system that improves E.D. performance and cost-efficiency so well in these seven key areas: 1) a ridiculously user-friendly electronic charting system, 2) significant improvement in staff communication and teamwork 3) more complete and full reimbursement, 4) 100% government compliance singled out by JCAHO as a success story and role model, 5) improved risk management and patient flow, 6) insightful real-time operational and quality analysis tools; and 7) comprehensive and error-proof prescription and discharge information systems. The end result: More reliable, error-free, cost-efficient and timely patient care.

The Seven Integrated Performance Functions of the ECDS Empower System

1. A 100% electronic user-friendly clinical documentation system

- Fully digital system for nurses and physicians-- from triage to discharge or admission
- Point-and-click format that's so easy to learn, only 1 hour training time is needed
- Clinical Information is entered into structured data fields, allowing 100% analysis and computability

2. A staff communication, teamwork and patient-flow enhancement system

- Eliminates the 30-40% of nurse and physician time spent on non-care activities (e.g. looking for charts, time-consuming manual charting, redundant work, checking status on test results, searching for staff to relay/receive orders, etc.).
- Demonstrated reduction in patient's average length of stay and patient departures without treatment (LWOTs).

3. An exclusive Intellicode System™ that requests ALL documentation necessary for more accurate coding and complete and appropriate reimbursement

- Automatic coding function that eliminates inappropriate coding for the physician or nurse level of service (LOS).
- Eliminates coding variability, applying HCFA/CMS coding rules precisely and consistently.
- Eliminates unbillable charts due to illegibility or lack of signatures; alerts staff to documentation oversights at the point of care that would otherwise lead to lower LOS and reimbursement.

4. A JCAHO-acclaimed compliance assurance system

- Singled out from all other E.D. software charting systems by JCAHO's Joint Commission Resources subsidiary as its success story and role model.
- 100% complete compliance with JCAHO, Public Aid, HIPAA and HCFA/CMS regulation.

5. A unique medical liability RiskAlert System™ at the point of care

- No more settlements or lost malpractice cases due to illegible or incomplete documentation.
- Includes risk-reducing alerts for medical complaints that most commonly cause malpractice suits in order to prevent medical errors, ensuring the highest standard of care is both provided and documented.
- Automatically checks medications and prescription against allergy history.
- Alerts ED staff of abnormal vital signs.
- Requires physicians and nurses to perform and document repeat exams demonstrating patient clinical improvement or course prior to discharge home or hospital admission.

6. Insightful, free operational performance improvement and quality control tools

- Real-time productivity tools to monitor performance of the E.D. staff or even individual caregivers.
- Quality control analyses of virtually any procedure or outcome across thousands of records; free with next-day delivery.

7. Prescription and discharge instruction/follow-up systems

- A complete prescription database with automatic pound to metric kilogram conversion and cross-checking against allergy history
- Automated discharge instructions in English, Spanish or Polish (other languages available upon request)
- Complete patient follow-up information with PCP or Specialist, who is automatically faxed the record

All of ECDS Empower's multi-functional benefits synergize to provide more reliable, error-free, cost-efficient and timely patient care.

1. The Simple Prescription for 100% Electronic and Encoded Medical Records

“I am extremely satisfied with the ECDS Empower System. For someone who knows very little about computers such as myself, computer charting is very easy to learn. There is no way I would want to go back to handwritten charting.”

- Aritha Parker, RN, Emergency Department Charge Nurse, Michael Reese Hospital

ECDS Empower includes all aspects of clinical documentation for physicians and nurses-- from triage to discharge or hospital admission. Unlike some systems that utilize dictation or staff-typed entries, the entire ECDS medical record is computer encoded with variable designations in structured fields, allowing maximum analysis and computability.

Easy to Learn

ECDS Empower is an intuitive, easy-to-use Windows based system that administrators, doctors, nurses and IT professionals can easily appreciate. Basic training requires only about an hour. In most installations, on-site support is not necessary after the first two days, and while free 24-hour support is available, it is seldom used after the first few weeks in operation. In hospitals where ECDS is available, there is 100% participation and compliance from the entire medical staff.

Easy to Use

ECDS is remarkably intuitive and user-friendly; within a month of use, most physicians find it even easier and faster than using the handwritten chart. Instead of templates, ECDS uses physicians' personal vocabulary to describe patient's history, physical exam, diagnostic tests and medical orders. Nurses' personal vocabulary is also utilized and lab orders are completed with a few mouse clicks, prescriptions don't have to be hand-written, electronic-signature/time-stamping eliminates redundancy, and pre-populated default fields make chart completion rapid-fire.

The system uses large fonts, clearly labeled fields, color coding and simple screens to make information management intuitive and quick in areas such as: [put in blocks like on software screen in colors matching software]

- | | |
|---|---|
| 1. Patient Tracking E.D. Board | 8. Diagnosis & Notifications |
| 2. Triage | 9. Discharge instructions |
| 3. History | 10. Prescriptions and Allergy Detection |
| 4. Physical Exam | 11. Nurses notes |
| 5. Diagnostic tests | 12. Level of Service Reimbursement Preview |
| 6. Medical orders and Allergy Detection | 13. OPI and Q/A Reports (administrators only) |
| 7. Procedures | 14. Email Alerts |

- **Drop-down boxes** are used for customized information lists, allowing users to scroll to the target, or type the first few letters. Multiple entries are strung together automatically into easily-readable descriptions or phrases. Lists include full text phrases and common abbreviations (such as systemic lupus erythematosus, SLE or lupus) and are completely customizable. Visually, it looks like a traditional ED chart created from oral transcription.
- Although compatible with voice-activated software, none of the physicians who use the system have elected to use verbal dictations to date, preferring the quicker pre-written options.
- **Check-boxes** are also utilized to record steps taken and questions asked.
- ECDS customizes to the physician/nurse instead of the physician/nurse customizing to the computer system.

Easy Access & Output

All staff log-in with a user name and encrypted password; bio-metric fingerprint access security is also available. Most facilities install ECDS on PC Desktop workstations, wireless laptops secured to mobile carts for bedside use, or thin Tablets computers with touch-screen capability. As technology improves in the future, PDAs will also be an option. Secure remote access from hospital or home office is available, allowing administrators to review E.D. bottlenecks, up-to-the-minute E.D. volume and patient flow information and to print instant OPI and Q/A Reports from anywhere they have a computer.

Any section of the medical chart can be printed at any time; the final record can be printed immediately upon disposition. Demographic information can be exported for hospital records and billing, and medical orders can be automatically sent to and received from the laboratory and radiology departments {requires interface}.

Affordable, Readily-Available IT Infrastructure

ECDS is built on a widely-available, easily serviceable and exceptionally reliable software backbone that is 100% HIPPA compliant. No irreparable system downtime, due to the unique architecture redundancy, has been experienced in the several years ECDS has been in use. Windows PCs need only be outfitted with commonly used, inexpensive off-the-shelf-software: MS Windows 2000, a Microsoft Access user interface, Microsoft SQL Server 2000 (Client Tools Only) database, PC Anywhere, Winfax (to fax completed charts to Primary Care Physicians or Specialists), and Norton Antivirus. Data storage with SQL Server is incredibly efficient; for instance, one hospital found its 25,000 annual records consumed only 100MB or 1/7th of a CD-ROM. The ECDS System comes with complete installation and support:

- * Documentation software * Network management * Unlimited personnel on-site or for remote training.
- * Additional on-site consultation and group training available * 24 hour immediate tech and user support.
- * Free upgrades * Free unlimited quality control and performance analysis reports.

Additional interfacing is eminently feasible, including the sending of automatic diagnostic orders to laboratory or radiology and the exporting of demographic information for hospital records and billing.

“If something doesn’t work, ECDS Empower is easily modifiable because the logic of the system is simple and clear.”

-- Beverly Weaver, RN, director of emergency department nursing St Mary of Nazareth Hospital.

2. The ECDS System Helps Transform the E.D., Empowering Staff to Improve Communication, Teamwork and Patient Flow

The most precious resource for a hospital Emergency Department is the valuable time of its physicians and nurses. Ordinary handwritten charts waste an enormous amount of physician and nurse time in many ways:

Inefficient Staff Activities in the E.D.

* No real time information or tracking of the E.D. patients* Searching to find the chart * Searching to find the doctor or nurse to clarify or discuss orders * Requiring physicians and nurses to remember the documentation minutia needed for complete and appropriate reimbursement * Requiring four or more signatures on the same chart * Requiring routine medical orders or procedures to be written in long-hand * Making staff check and re-check the chart to see whether diagnostic tests have been completed * Writing repeat assessments and vitals * Requiring prescriptions to be written and re-written ... the list goes on and on.

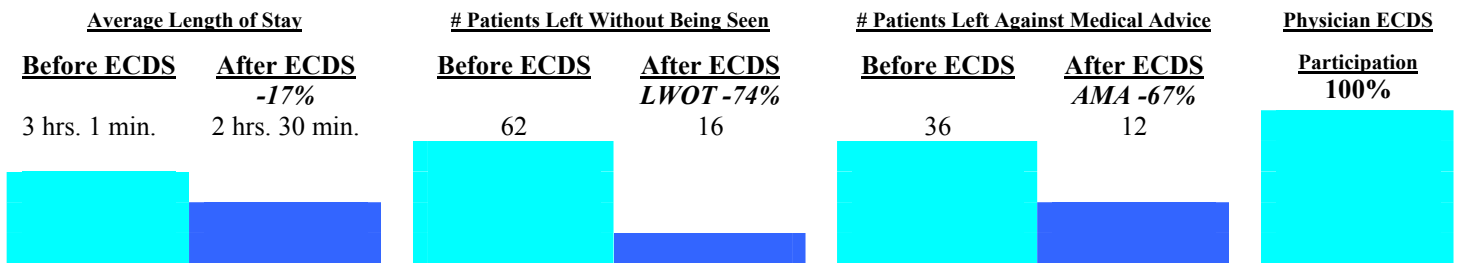
Together, these activities are estimated to consume 30-40% of physician and nurse capacity. In contrast, the ECDS Empower System lets physicians and nurses spend significantly *less time charting and more time caring for patients*. ECDS eases the burden on an extremely stressed health care system. Key functions improving staff efficiency and patient-flow include:

1. **Faster charting** via an intelligently designed, logical interface with rapid-fire documentation
2. **A Patient Tracking Board** that provides an instant, real time, color-coded overview of the E.D., including open exam rooms, number and name of patients in the waiting room, patient name, chief complaint, time waiting, status of diagnostic tests and medical orders, treating physician and nurse, exam room number, disposition, chart status.
3. **Full, easy accessibility** to every current and past medical record; physicians and nurses can access patient information from anywhere in the E.D. Hospital administrators can even remotely access E.D. information off-site.

E.D. Performance Audits Indicate ECDS Measurably Improves Patient Flow

ECDS lets physicians and nurses focus on *using* information, not recording or searching for it. The Presidential Medical Staff of St. Mary of Nazareth Hospital audited the operational performance of their physician group with handwritten versus the ECDS system by using seasonally comparative time periods, and found the following operational improvements:

Audit of St. Mary of Nazareth Operational Results



3. The exclusive ECDS Intellicode SystemTM Procures ALL Documentation Necessary for More Accurate Coding And Complete Reimbursement

“The current E.D. system of utilizing a handwritten chart burdens the physician with not just providing good thorough care, but with documenting the minutia of the process so to achieve 100% reimbursement for the care provided. In the alternative – which is most of the time – reimbursement rates suffer and lead to under-billing.” -- Brent R. Asplin, MD MPH (Ann Emerg Med 2002;40[3]:275)

The cost of medical care is increasing while public and private payers keep reducing reimbursement, creating severe economic pressure. The problem is compounded because, even when quality care is provided, it is often not billable because the level of service (LOS) and reimbursement is reduced (“down-coded”) due to documentation illegibility or inadequacies. In fact, one source estimates that over 30% of E.D. handwritten charts have documentation inadequacies that inhibit complete and appropriate reimbursement.¹ – Barb Holakovsky, President of Physicians Coding Solutions Chicago, IL LTD.

While most ordinary documentation systems address legibility, and sometimes include some form of physician or computer coding, *no other system* than ECDS Empower prompts physicians and nurses to require coding-critical documentation, information which if left missing would cause the LOS code to be below the level of services actually provided. The proprietary ECDS Intellicode SystemTM empowers hospitals to eliminate E.D. coding expenses, ensure unparalleled coding accuracy and consistency and virtually eliminate non-billable and down-coded records, for more complete and appropriate reimbursement for services provided.

Documentation of Services Determines Reimbursement Outcomes

How ECDS Intellicode SystemTM Reduces or Eliminates Under-Reimbursement

<u>SERVICES</u>	<u>DOCUMENTATION</u>	<u>CODING</u>	<u>POSSIBLE REIMBURSEMENT OUTCOMES</u>
<u>Typical Coding & Reimbursement System</u> Services Provided →	Services Documented →	Coder manually reviews & assigns codes with level of service * Costly & complex * High variability, risking HCFA/CMS violation.	<div style="background-color: red; color: white; padding: 5px;"> → <u>Non-billable – No reimbursement</u> - <i>Often due to illegibility, lack of diagnosis, undocumented procedures, lack of signatures, etc.</i> </div> <div style="background-color: yellow; padding: 5px;"> → <u>Down-coded – Under-Reimbursement</u> - <i>Often due to illegibility or oversights in documentation on history, exam, medical decision-making, diagnostic tests not interpreted, nursing intervention, supplies, procedures, lack of diagnosis, etc.</i> </div> <div style="background-color: green; color: white; padding: 5px;"> → <u>Accurately Coded – Complete Reimbursement</u> </div>

Most Ordinary ED charting Systems:

Record most, but often not all, of the record electronically and requires duplicate data entry of the clinical information.

Some systems assign codes automatically, but most require costly and variable manual coding

Many ED charting systems reduce non-billable charts due to improved legibility and automatic signature but have little impact on assuring appropriate and thorough documentation to prevent down-coding.

ECDS Empower’s Intellicode SystemTM

Records all clinical information electronically

Features prompts and alerts to correct physician and nurse documentation oversights

Automated coding, eliminates or reduces coding costs

IntellicodeTM ensures 100% coding consistency and govt compliance

→ **Non-billable Charts: Eliminated**
 → **Down-coded Charts: Eliminated**
 → **Maximizes accurately coded charts for complete reimbursement of services provided**

¹Barbara Holakovsky AHIMA CHCO, President, Physicians Coding Solutions Ltd.

“ECDS Empower ensures more accurate and complete reimbursement, capturing all the services provided by both the physicians and hospital. The reimbursement difference has been substantial.” – Matt Yeterian, President Healthcare Business Consultants, hospital-based practice manager of 100 million dollars in physician professional fees based in Oak Brook IL

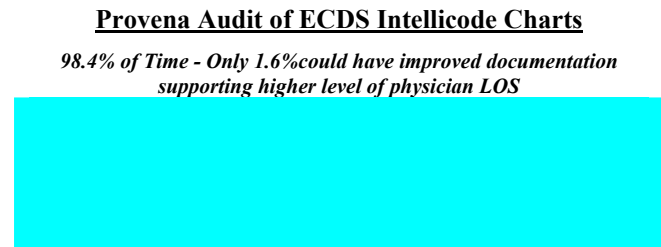
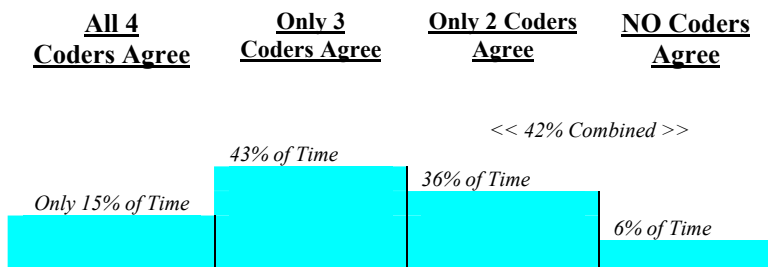
***In Contrast to Highly Variable Manual Coding,
ECDS Intellicode System™ Yields More Accurate Coding & Complete Reimbursement***

Handwritten charts are in many cases difficult-to-read or incomplete, resulting in concerning high levels of coding variability. In a study in the *Annals of Emergency Medicine* in which four different coding agencies coded the same handwritten charts, the agencies rarely agreed on LOS codes (see chart below). Moreover, in almost 1/3 of cases, there was *greater than a 2-level discrepancy* found in level of service, risking severe HCFA/CMS non-compliance.

The ECDS Intellicode System™ produces a complete chart and applies coding algorithms with 100% consistency across medical records, providing 100% HCFA/CMS compliance. In fact, a recent audit by a Provena Hospital E.D indicated that 98.4% of ECDS records had thorough documentation supporting **complete and appropriate billing**, with **only 1.6%** of records presenting any opportunity for better documentation that might support higher reimbursement.

Typical Manual Coding Accuracy is Fair-to-Poor¹

ECDS Intellicode System™ Produces Outstanding Documentation That Achieves Impressive Coding Accuracy²
Audit of ECDS Documentation



¹ "Reliability of Assigning Correct Procedural Terminology – 4 E/M Codes," Bentley P MBA, Wilson AG MD et al, *Annals of Emergency Medicine* (2002; 40:269-274)
² Audit by Prostar EM Coding and Billing

More Legible & Complete Documentation Leads to More Accurate Coding For More Complete and Appropriate Reimbursement

There is a critical need to improve documentation to support appropriate billing service levels. In addition to cost savings and compliance benefits, ECDS Intellicode™ also provides the potential for higher reimbursement by eliminating non-billable charts and reducing or eliminating down-coded charts that under-bill for the actual services provided. With *prompts and alerts* for coding-related missing documentation, the ECDS Intellicode™ has in all cases yielded *significantly higher physician and hospital reimbursement*.

The chart below shows the impact of ECDS in two inner-city Chicago hospitals on collections, reflecting the benefits of reimbursement improvements due to less under-billing as well as the financial benefit of enabling more efficient service.

Average Reimbursement Using Handwritten Charts versus ECDS Intellicode System™³

<u>Average Physician Collections Per Hour</u>			<u>Total Hospital E.D. Collections</u>		
<u>Hand-Written Charts</u>	<u>ECDS Intellicode™</u>	<u>Difference</u>	<u>Hand-Written Charts</u>	<u>ECDS Intellicode</u>	<u>Difference</u>
\$210/hour	\$277/hour	+24%	\$3,749,899	\$4,085,711	+9%
		Avg. MD LOS Increased +0.4 per patient,			Avg RN LOS increased +0.24 per patient

³Comparative four-month and one year study respectively at Michael Reese Hospital and St. Mary of Nazareth Hospital, Chicago IL

4. Nationally-Acclaimed 100% Government Compliance Assurance as Commended by JCAHO's Joint Commission Resources Subsidiary

Compliance with governmental regulatory requirements is of critical importance to hospital Emergency Departments. As noted by Merit Hospital System COO Jay Weinstein, "The Emergency Department is usually where a lot of 'Type 1' JCAHO violations come from and this is usually due to problems with documentation."

The ECDS Empower system is thoroughly designed with compliance needs in mind and in fact was the only E.D. computer documentation system selected by JCAHO's Joint Commission Resources to be featured in its book, *Accreditation Issues for Emergency Department: Chapter 9, Resurrection Health Care System's St. Mary of Nazareth Hospital Center's Automated ED – A Case Study {on the ECDS System}*.

According to JCAHO Joint Commission Resources Subsidiary:

- "Before going electronic [with the ECDS system], about half of its [St. Mary's E.D.] charts were illegible and inadequate for billing, were non-defendable for malpractice cases and were noncompliant with governmental standards for clinical documentation."
- "St. Mary of Nazareth Hospital Center launched a fully electronic medical chart [utilizing ECDS] that has **enabled the emergency department to correct a number of deficiencies** that frequently create compliance problems with Joint Commission standards. "
- "This book ... ends with a case study on the wireless operation of a large urban emergency department that **has overcome many compliance-related challenges** by automating its documentation function. "

ECDS Empower provides E.D.s with the ability to achieve 100% compliance to key Federal and State requirements such as:

- **JCAHO** – 100% compliant - ECDS provides a fully-legible complete electronic medical record with prompts and alerts to require all documentation needed before disposition. ECDS was the only E.D. system singled out as a success story and role model by JCAHO's JCR subsidiary.
- **HCFA/CMS** – 100% compliant - ECDS has prompts for HPI, ROS, PMHx, SoHx, FMHx & physical exam, diagnostic study interpretation etc. Physician/nurse orders and activities are automatically signed and time-stamped; verbal orders need to be electronically acknowledged by both parties. The ECDS system is one of the few systems that eliminates variability in coding and billing to the government and insurance companies.
- **HIPAA** – 100% compliant

With ECDS, you can rest assured that document-related compliance issues will be essentially eliminated and that the ECDS system smartly encourages actual clinical behavior to reflect compliance requirements.

5. A Real-time RiskAlert™ System at the Point (Site) of Patient Care to Help Stop Medical Errors and Provide Better Liability Defense

There is no way to prevent malpractice lawsuits; adverse or idiosyncratic outcomes will occur no matter how good the care. However, poor documentation exacerbates the problem; “historically, 35-40% of malpractice lawsuits have been rendered indefensible because of problems with the medical record, even when the actual care was appropriate.”¹

Many competitive systems solve the legibility issue. Templates and electronic systems tend to effectively document illness, diagnosis and treatment. ECDS goes further, providing these benefits plus its RiskAlert System™ which initiates alerts to ensure the standard of medical care is provided, helping to stop medical errors, and with one “click” provides documentation that gives important liability safeguards.

“Faulty or insufficient documentation is the ‘Achilles heel’ of as many as half of our malpractice cases. In contrast, not only does ECDS provide exceptional clinical documentation, but ECDS is unique in offering evidence that {diagnostic tests were read, symptoms improved} other diagnoses were considered {and the standard of care was provided}. This could be of pivotal importance in the defense of many malpractice actions.” Kent Mathewson, Esq., medical malpractice attorney at Donohue, Brown, Mathewson and Smith Law firm Chicago, IL

Risk Reduction Features of ECDS RiskAlert System™

Common Causes of

Medical Error and/or Malpractice Liability

Medical Records illegible or incomplete

Discharge without normal vital signs, no record of improvement, un-reviewed diagnostic tests

Inadequate patient follow-up information

Prescription errors due to illegibility or allergy

For High Risk Complaint Cases

(for example, chest pain, pediatric fever, etc.)

Prompts for standard of care not provided

No record of differential diagnosis

Incomplete or no record of pertinent negatives in the history and physical exam

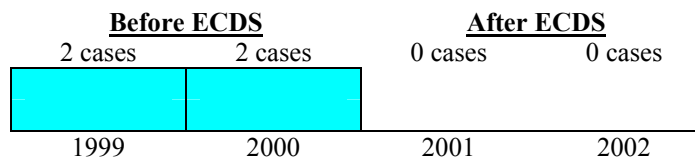
RiskAlert System™ Solutions

- Complete electronic typed and printed medical record
- Alert signals if chart is incomplete.
- Alert signals and required documentation of the patient’s reassessment with normal vital signs and interpretation of all diagnostic studies
- Discharge instructions are automated, including contact information and instructions for PCP and Specialist (who are faxed the E.D. record), and warning signs and symptoms that require return to the E.D.
- Allergy Detection Alert signals as needed; Prescription illegibility is eliminated
- RiskAlert System™ activates extra protection for the chief complaints most commonly involved in medical malpractice lawsuits
- Risk Alert prompts the standard of care for each high risk clinical pathway
- Risk Alert provides a review and documents the key differential diagnoses and with a “click” adds required check-steps, documenting sound decisions
- Risk Alert mandates documentation of pertinent components of history and physical exam that must be considered and as needed suggests diagnostic tests and medical intervention.

The ECDS RiskAlert System™ in Action – A Reduction in Lawsuits

It’s impossible to measure how many medical errors have been avoided by the ECDS RiskAlert System™. However, despite a small base size, the trend in lawsuits is clear at Michael Reese Hospital in Chicago, dropping since ECDS RiskAlert System™ was installed:

of Medical Malpractice Actions Brought Against Michael Reese Hospital Emergency Department



The ECDS RiskAlert System™ Has the Potential to Reduce Malpractice Insurance Costs

The benefits of this more effective risk management systems are clear: an error-free documentation system with the potential for lower medical liability costs, whether due to lower insurance premiums or due to lower litigation-related costs and settlements/verdicts “Long-term, malpractice insurance carriers will likely offer significant discounts for using documentation and risk management software of the caliber of ECDS. Short-term, ECDS provides the prompts necessary to help achieve a significantly lower level of negative medical care and malpractice outcomes, which could relatively quickly lead to the same benefit of reduced premiums.” Thomas E. Klug, Executive VP Gallagher Healthcare Insurance Services, Kansas City MO

¹ Cantrill S, Karas S, et al: ACEP Cost-Effective Diagnostic Testing in Emergency Medicine, 1994

6. Insightful Real-Time Operational Performance Improvement and Quality Control Tools

Now that it can be measured, it can be improved.

An electronic clinical record with every piece of clinical data recorded as computable variables – plus time stamps for all activities – provides an unprecedented ability to analyze operational performance and quality of care. Plus, it's included in the software cost, eliminating costs for additional analyses and reports.

Built-in operational analysis tools allow instant monitoring of the operational performance of the E.D. in total, by patient phase and even by individual doctor or nurse, helping to illuminate operational bottlenecks or opportunities for improvement. Instant and Standard reports include:

- Census (Daily, Monthly, Yearly, etc)
- Average Length of Stay in E.D., hospital admissions and discharge home
- Average time to triage a patient
- Average time to register a patient
- Average physician time to examine a patient
- Average time for a nurse to execute a diagnostic or medical order.

In addition, quality control studies no longer require tedious, manual reviews of thousands of charts for even the simplest of studies. ECDS quality control analyses for virtually any chief complaint, treatment, outcome or any other measure in the chart can be easily analyzed across thousands or tens of thousands of records and are provided free with next-day delivery.

1. Q/A Studies by Chief Complaint, Diagnosis (Asthma, Chest Pain etc).
2. Timeliness to administering medicine (Thrombolytics, Anti-biotics etc)
3. Average number of diagnostic studies ordered, by each physician (Utilization Review Studies)
4. Average number of radiology studies ordered, by each physician (Utilization Review Studies)

Furthermore, E.D. vitals statistics are no longer delayed or unobtainable. . Instant and Standard reports include:

1. Typed and printed ED Patient Log
2. Number of Admissions Daily, Monthly, Yearly in total or by admitting physician
3. Number of Admissions: Telemetry, ICU, Pediatrics, etc.
4. Number of Ambulance Runs, city and private
5. Number of Transfers

Combined, these studies provide an unprecedented increase in the ability to *measure* and therefore *improve* E.D. performance. Virtually any study imaginable can be run quickly and without additional costly fees for better measurement and eventually better care.

7. Prescription and Discharge Systems that are Easy, Thorough, Error-Free and Multi-Lingual

Effective patient follow-up is as important as effective diagnosis and treatment. Prescriptions need to be legible, accurate and consistent with medical allergy history. Discharge instructions need to convey important patient information. ECDS Empower meets these essential follow-up challenges.

A Complete, Error-Free Prescription Management System

ECDS Empower system includes a complete prescription database of both generic and branded medications on a single user-friendly drop-down list.

Simply making prescriptions 100% legible is a medically significant accomplishment, and a timesaver. The ECDS RiskAlert System™ goes further to alert physicians to any prescription conflicts with the patient's medication allergy history – even if the drug is different from the specific allergy but in the same class of medications.

One extra feature many physicians and nurses appreciate is the automatic pound to metric kilogram conversion function, which makes medication titration a breeze.

Quick and Thorough Multi-Lingual Discharge Instructions & Follow-up Care Assistance

ECDS automates the discharge instruction process, leveraging the chief complaint to provide a rapid-fire check-off and (if needed) fill-in-the-blank system for physicians to indicate appropriate individualized discharge instructions.

No more searching through filing cabinets for discharge instruction sheets; no longer are physicians and nurses burdened with screening through dozens of discharge forms or templates. Automated multi-lingual instructions are currently available in English, Spanish or Polish (other languages available upon request).

For appropriate follow-up care, the complete phone and address information for the patient's PCP or Specialist is automatically included on discharge instructions, and a chart copy is automatically faxed to the physician's follow-up office. Outside physicians like referring patients to an Emergency Department that encourages follow-up, provides continuity of care and keeps them totally up-to-date. The ECDS Empower system can be a powerful marketing tool to encourage PCPs and Specialists to use your hospital E.D. over other competitors in the community.

ECDS Empower's Competitive Advantages That Are Essential to Success

Be sure to review these areas when comparing electronic charting systems

Emergency Department documentation software and systems are complex to understand and compare. Here's what we believe makes ECDS so special, which few if any competitors can claim.

- ***More Comprehensive and More Computable*** – *Competitor systems usually don't include medical or diagnostic orders – Many systems are "pseudo-electronic," just recording freely-written text electronically instead of using structured lists to make the entire medical record computable with usable data which guarantees 100% government compliance on documentation issues.*
- ***Ridiculously User Friendly for Physicians and Nurses*** – *Competitor systems are often more complex, less customizable and less likely to get 100% staff utilization – Doesn't require learning and choosing among an abundance of templates like many systems -- Many competitive systems "spoon-feed" or even insult physicians with treatment directions or databases of basic information.*
- ***Provides Real Time Patient Information and Communication throughout the E.D.***
- ***Customizable-*** If you don't like it, we can change it.
- ***Improved Coding & Reimbursement*** – *Competitor systems often continue to require expensive coding service staff; while some include automated coding, there is no other system that alerts staff like ECDS Intellicode does to documentation needed for more accurate coding and complete reimbursement for services provided. ECDS Intellicode is the only system that codes the Physician's LOS for medical decision-making with 100% accuracy.*
- ***Acclaimed Compliance*** – *ECDS is the only system singled-out by JCAHO's JCR publishing arm as a success story and role model.*
- ***More Risk Reducing*** – *While any system that can improve legibility helps reduce risk, ECDS RiskAlert System™ provides an extra edge in risk management by requiring documentation of improvement, requires normal vital signs (high end of normal) on discharge home, and alerts the physician for appropriate extra documentation in cases with high-risk complaint; this safeguard prevents medical errors and mandates specific documentation to defend ED charts in the unexpected event of a poor medical outcome or malpractice law suit.*
- ***More Economical*** – *Unlike many systems which layer-on modules or components to justify higher fees, ECDS is an integrated solution that meets all E.D. needs with one system; extra value is also uniquely provided by the ability to reduce or eliminate coding costs, decrease billing costs, reduce non-billable and down-coded E.D. Charts, and save on quality control and productivity study costs*

About ECDS Empower System™

ECDS Empower was developed to provide a multi-functional solution to the financial crisis experienced in inner-city Chicago and many other hospitals. A team of E.D. administrators, physicians, nurses, CIOs, risk managers, coders and billing managers under the direction of Seth Guterman, MD FACEP, President of Emergency Care Physician Services, orchestrated the engineering of this system ... not out of choice, but out of necessity. With reimbursement rates and revenue plummeting, and dictation, coding and malpractice costs rising, the financial squeeze forced ingenuity to emerge to find a better way of running the E.D.

The group quickly concluded that existing systems on the market failed to address many of the critical issues facing the E.D., including non-billable and down-coded charts and risk management demands. They decided they needed to create a more physician-friendly, hospital-friendly, government-friendly and financially-friendly comprehensive solution. The ECDS system itself was developed by actually housing computer programmers *in the midst of* several Chicago Emergency Departments so that they could interact daily with all E.D. and hospital personnel. The ECDS Empower System was created and represents several hundreds of ideas and recommendations from medical staff, administrators, compliance officers, malpractice lawyers, quality improvement committee members, medical records personnel and billing employees. Together, the ECDS Empower System is designed to support improved E.D. performance for each of these constituents and ultimately to provide more timely, cost-efficient, error-free medical care for patients.

Frequently Asked Questions

1. Why does the Emergency Department need its own computer system?

Within the next 10 years, a multifunctional software system of the caliber and comprehensiveness of ECDS might be available for the entire hospital. ECDS itself provides a sound platform which could someday be expanded to address this need. However, today, there is no comprehensive hospital-wide system capable of providing the multi-functional combination of fully electronic clinical documentation, automatic coding, risk management, compliance assurance and other features that ECDS provides.

In addition, the Emergency Department is operationally unique and is not an area where performance can afford to be sacrificed for the theoretical benefit of a single-system approach. The E.D. is the gateway to the hospital, accounting for approximately ½ of all hospital admissions, and it needs quick turn-around of a very service-dependent patient population, split-second decision making and detailed discharge instructions with little margin for error and 24/7/365 operations.

ECDS meets the unique demands of the E.D. and does so with a level of performance and financial returns that clearly justify its purchase.

2. Aren't physician and hospital reimbursement rates simply a reflection of the work that's done?

Reimbursement levels in most hospitals generally do not reflect appropriate billing levels for the services provided; most hospitals under-bill public assistance programs and private insurance companies alike.

Reimbursement is the end-point resulting from a chain of events that occur in the hospital. First, services are provided, then they are documented, then they are coded and finally they are billed. While most Emergency Physicians and E.D. Nurses practice good medicine, many times these services are not fully documented and therefore aren't billed; according to a common physician edict, "if you didn't document it, you didn't do it."

Second, the HCFA/CMS coding is based on the amount and complexity of activity *as documented* in the medical history, medical exam and clinical decision-making processes. Once again, if these activities are performed but not documented, it lowers the level of service code and results in under-billing. Finally, the illegibility and oversights in documentation cause highly variable coding results – which in itself is a major HCFA/CMS compliance issue – and encourages those in the coding process to have a downward coding bias at all times.

In contrast, the ECDS Intellicode system provides automated and accurate level of service coding for both the hospital and the physician which is 100% HCFA/CMS compliant and will withstand any accuracy or appropriateness audit that can be conceived. Plus, ECDS makes rapid-fire documentation simple enough to encourage full-documentation, and Intellicode provides added alerts to *make certain* physicians and nurses have appropriate documentation necessary for complete and appropriate reimbursement.

3. Does ECDS Empower integrate with existing hospital systems?

ECDS Empower features a 100% HIPPA compliant, HL-7 Compatible and simple software infrastructure that can allow seamless integration with existing hospital systems. Integration work is on-going and comprehensive, and can be completed to meet most hospital demands.