



Updates!

e-Newsletter from Iatric Systems, Inc.



Happy Holidays!

December, 2005

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1. Message from Senior Management

Building a Better Mouse Trap

Ken Hoffman, Vice President
Interfaces and Integration



I'm sure most of you are familiar with late-night infomercials that show nifty little gadgets that improve on existing products. One of my favorites is the Ginsu Knife that can cut through an aluminum can yet never dulls. While infomercials probably don't top the list of educational programs for any of us, I think we would all agree that these innovative ideas have value in that they can cause us to think about products in new ways.

Here at Iatric Systems, we never stop thinking about new innovations and improving existing products. In fact, we have hundreds of customers that continually provide us with feedback and new ideas. As many of you know, I spend most of my day talking with you about current offerings, enhancements, and ideas for new products. This type of dialog is important to Iatric Systems, and we value this feedback.

Looking back on 2005, I'd like to take a moment to point out a few of the offerings developed by Iatric Systems' Interface/Integration Division that are the direct result of our dialog with customers:

- **Iatric Interface Manager (IIM):** The Meditech NMI routine helps IS staff manage a hospital's Meditech interfaces. IIM is the NMI equivalent for all of your organization's Iatric Systems interfaces, and it is installed with every new Iatric interface at no additional charge.
- **iAlert:** iAlert is a step beyond NMI and IIM in that it provides automatic, real-time notification of interface issues to staff. Iatric Systems staff is automatically notified of any Iatric interface issues, and we're usually able to correct issues before the hospital is even aware of a problem. iAlert can also be set up to send notifications to hospital IS staff, including notifications concerning Meditech interface issues and Caretaker user defined alerts.

- **Iatric Interface Router (IIR):** If you're tired of paying repeatedly for the same outbound interface but would like to avoid the expense and associated support an interface engine requires, then you should take a look at IIR. IIR is a cost-effective solution that enables hospitals to duplicate and customize HL7 transaction feeds without the need for an interface engine.

If you have any questions or comments about the offerings listed above, or if you have any ideas for new products or improvements to existing products, please contact me or your Iatric Systems Account Manager.

On behalf of all of us here at Iatric Systems, we wish you and your families a Merry Christmas and a Happy Holiday Season!

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2. Jan 18th Patient Safety Mini-MUSE in Maryland

 **Using Your Information Technology Systems to Help Meet JCAHO 2006 Patient Safety Goals** is the theme of a one-day mini-MUSE scheduled to be held on Wednesday, January 18, 2006.

The event is scheduled to be held at the Martins Crosswinds Conference Center in Greenbelt, Maryland, and will run from 8:30am – 4:00pm Eastern, with actual conference sessions starting at 9:30am.

Sessions will include:

- **Patient Safety Discussion Forums** on Patient Risk Management, Medication Safety & Reconciliation, Patient Identification, and Effective Communications Among Caregivers
- **Hospital Educational Sessions**
- **Vendor Educational Sessions**
- **Vendor Demonstration Sessions**

The schedule includes sixteen (16) patient safety related sessions in total, and the conference is geared towards nursing, pharmacy, laboratory, IS staff who support those areas, and anyone interested in using IT to meet JCAHO 2006 patient safety goals. A luncheon will be provided, and the registration fee is \$25 (includes lunch).

While the conference will be held in Maryland, and many of the educational sessions already scheduled will be presented by Maryland hospital users, participants across the nation are welcome to attend. You can register online at http://www.museweb.org/conferences/mini-MUSE/mini_MUSE_02.htm. A few open slots remain on the schedule, so if you have a patient safety related educational session you would like to present, please use the "Call to Participation button" ASAP, or you may contact Diane Goldstein at dgoldstein@dchweb.org.

See you in Maryland on the 18th!

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3. Customer Spotlight: Visual FlowSheet at Mercy Canton



A little over a year ago, [Mercy Medical Center](#), a 476-bed facility located in Canton, OH, went live with Iatric Systems' Visual Flowsheet System (VFS). We spoke with the hospital's

implementation team (ERMA) recently to learn more about how the system has benefited the organization over the past year.

Prior to the implementation of VFS, patient care was documented on paper at Mercy. “We attempted to install NUR in 1997. We failed primarily because the system was simply too cumbersome to use,” recalls Jim Williams, Mercy’s CNO. After the initial attempt to document online, Mercy formed the Electronic Record Management & Archive team (ERMA) and charged ERMA with documentation redesign and selection of a system that would conform to clinical workflow and facilitate more effective multidisciplinary care. Jim notes, “We couldn’t de-install Meditech, so we needed to find something that would work with it. We took a look at VFS, and quickly realized it was exactly what we needed.”

Many nurses currently on staff at Mercy were on staff at the time of the initial attempt to computerize, so there was a significant amount of skepticism prior to last year’s VFS implementation. However, nurses are now impressed with its ease of use, and those same skeptics can’t say enough good things about the system today. “I’m constantly hearing from the staff how wonderful the system is. Go-live was so smooth – I kept waiting for the bomb to hit, but it never did,” said Barbara Yingling, Mercy’s Assistant CNO and part of the ERMA team.

Many physicians at Mercy are also happy with the new system. Because VFS allows hospitals to customize the way in which clinical data is presented, the ERMA team was able to create an online chart that mimics the hardcopy medical record, making the transition to computerized patient assessment an easy one for the doctors. “Being able to customize physicians’ views is key – we’re able to give them what they want,” said Carol Clevinger, another member of the ERMA team. “We give them one-stop shopping, with tabs that give them access to labs, meds, test results, I&Os, therapy notes, nurses’ notes – even access to custom NPR report results. It has the same familiar feel as our paper charts, and physicians can simply click on tabs to view information, instead of having to arrow in and out of different data sources in PCI.” Jim Williams summed it up by adding, “There wasn’t a single physician in the CEO’s office after go-live, which says a lot.”

VFS is now in use at Mercy Canton in virtually every inpatient area. Next steps include online documentation of medication administration, as well as implementation of online clinical documentation in outpatient areas.

As one might guess, there were many lessons learned along the way. Members of the Mercy Canton ERMA team will be sharing their insights and experiences at International MUSE in Orlando next year, so keep an eye out for their educational session.

Iatric Systems’ VFS Suite includes flowsheet functionality as well as eMAR, bedside medication verification and a nursing status board. VFS is available in [MAGIC](#) and [Client/Server](#).

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4. CMS Guide to PHI Risk Analysis & Management



In the US, HIPAA has become a household name – we hear about it when we go to the doctor, to our dentist, or to the hospital. As patients, some of us may feel HIPAA has created a lot of red tape, but ultimately we cannot deny that it has driven industry-wide ownership and protection of PHI (Protected Health Information).

Software vendors have had to step up to the plate in order to comply with the 04/21/05 HIPAA Security Rule deadline. MEDITECH expanded their audit trails to include significantly more detail regarding patient information viewed and/or changed by users. Iatric

Systems created Security Audit Manager to provide IS staff with easy, plug-n-play security audit trail reporting.

The Centers for Medicare and Medicaid Services (CMS) has created a series of white papers designed to assist hospitals and healthcare organizations address the HIPAA Security Rule. CMS Security Series paper #6, Basics of Risk Analysis and Risk Management is now available. The excerpts below have been taken directly from the white paper:

The Security Management Process standard, at § 164.308(a)(1)(i) in the Administrative Safeguards section of the Security Rule, requires covered entities to “[i]mplement policies and procedures to prevent, detect, contain, and correct security violations.”

The required implementation specification at § 164.308(a)(1)(ii)(A), for Risk Analysis, requires a covered entity to, “[c]onduct an accurate and thorough assessment of the potential risks and vulnerabilities to the confidentiality, integrity, and availability of electronic protected health information held by the covered entity.”

The required implementation specification at § 164.308(a)(1)(ii)(B), for Risk Management, requires a covered entity to “[i]mplement security measures sufficient to reduce risks and vulnerabilities to a reasonable and appropriate level to comply with § 164.306(a) [(the General Requirements of the Security Rule)].”

Don't be overwhelmed by the legal jargon. The article does a good job of outlining in layman's terms what a hospital's policies and procedures with regard to PHI threats and vulnerabilities might look like and what to watch out for in the future.

Unfortunately, sometimes it takes a breach in security to prompt a covered entity to fully review their risk. Risk is a problem not only due to the potential fines that can be imposed per incident, but the embarrassment and public relations nightmare that inevitably ensue after a publicized breach of confidentiality. Thanks to the HIPAA Security Rule and hospitals that have fully reviewed their risk, our customers are now able to proactively identify confidentiality breaches that would have gone undetected a year ago.

If you've already mastered Security Rule Compliance, you can read more at CMS about the latest in HIPAA news and the next round of challenges – National Provider Identifiers and Electronic Health Claims Attachments.

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5. Security Audit Manager Webcast Demos



The US HIPAA Security Ruling went into effect on April 20, 2005. Health Information Protection Acts have gone into effect across Canada. Is your organization able to quickly and easily identify potential breaches in patient confidentiality and system access? With [SAM \(Security Audit Manager\)](#), now you can!

SAM enables hospitals to **proactively** monitor and identify security risks. It provides IS staff with secure access to all user and patient access activities,

and with many flexible reports included with the system, SAM is truly a turnkey, plug-n-play solution. Furthermore, SAM helps organizations comply with security and privacy requirements without expending a great deal of Meditech HCIS storage space or IS staff time.

If you would like to see SAM in action, please join us via webcast demonstration. Our webcasts are online, real-time interactive sessions that you can attend from the comfort of your own office, and they are provided at no charge. We will be hosting several SAM webcast demonstrations in January:

Webcast Date	Day	Time
01/10/06	Tuesday	2:00 PM EDT
01/11/06	Wednesday	2:00 PM EDT
01/19/06	Thursday	2:00 PM EDT

To register, simply click the session date, and please be sure to include your **name, phone number and hospital name**. We'll promptly send you registration confirmation and instructions on how to participate.

SAM is available in [MAGIC](#) and [Client/Server](#).

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6. NPR Report Writing Tips

Revisit Report: "Look Ma, no fragments"

We often use a revisit report as an example of using fragments for record selection. You call a fragment report from a computed selection field, pass a unit number, and have the fragment figure out if there is an older visit that meets some elapsed hours or days criteria.

A problem with using a fragment for the selection, is that the "main" report is typically set up to consider the "most recent" visit and the fragment finds the "prior" visit. This means it is cumbersome to print information from the prior visit on the "main" report.

Also, of course, fragments are slow, and you've got two reports to maintain.

An alternative approach can be to loop thru the unit number index in a computed select field to detect "prior visits", this eliminates the "two reports" issue, but can be slow and you will still have trouble printing the information from the "prior" visits.

In this tip, we will show a method for writing revisit reports that uses a "start" macro to check the most recent visits for a user-selected date range, and then uses the MRI.PAT visits segment to check for prior visits which qualify. If a prior visit is found, we save both the "current" and the "prior" visit, so we can easily print them on the report.

This example report checks ER visits for a service date range, looking back for a prior ER departure within either 72 hours or 3 calendar days. The prior ER visit is checked to make sure it was a "regular" ER visit and the patient was not admitted under the same account number.

As we process the visit segment, the @MRI.PAT.visit.type will be ER for all ER visits, and if we check the @status field in ADM for that adm.urn it will be either REG ER or DEP ER or ADM IN or DIS IN depending on what else happened for that account number. By checking to make sure that @status[@MRI.PAT.adm.urn]#2A is "ER" we exclude accounts that went from ER to IN.

First, create a report in ADM.PAT with no index. Use a detail segment of adm.patient.file (magic) or main (C/S).



We do not want to use an index because we are going to get the patients who qualify via logic in a "start" macro called at the beginning of the report.

Set up sorts as follows.

unit.number	Trailer
service.date	DSC
urn	

Sorting by unit number will keep a patients visit and revisit together. Sorting DSC will put the most recent visit first. For C/S pre version 5.5 you will need to sort by a computed field as follows:

xx.reverse.date

LEN=8
 VAL=99999999-@service.date

Sort Field	Order	Header	Trailer
1 unit.number	ASC	NONE	Y
2 service.date	DSC	NONE	N
3 urn	ASC	NONE	N
4			
5			

Annotations:
 - "Sort by Unit Number" points to unit.number
 - "Then by service date descending" points to service.date

Next prompt the user for the start date and end date of the "revisits" to be considered. Use and IG operator and two computed fields xx.from and xx.to to get this information. Prompt the user to select two selection options "72 Hour" or "3 Days". In Magic (or C/S 5.5) you can use a CH= attribute via the EDIT ELEMENTS routine.

Select Field/Prompt or Value	Oper/Default
1 xx.from From Current ER Visit Date	IG
2 xx.to Thru Current ER Visit Date	IG
3 xx.select.option Selection Option	IG
4 urn /URN	LI

Annotations:
 - "Get dates from user for 'most recent' visit" points to xx.from
 - "As for 72 hour or 3 day option" points to xx.select.option
 - "We will build a list of the accounts to print in /URN[@urn]" points to /URN

You can build your picture with standard fields, both the "revisit" and the "prior visit" will print. No special computed fields will be needed to print the "prior visit" information.

```

REG H 0-----1-----2-----3-----4-----5-----6-----7-----8
HP    |
HP    | Most Recent ER Visit from: xx.from_ Thru: xx.to___ Select: xx.select.option___
HP    | Acct      Name/RFU                Service Dt/TM      ER Depart Dt/TM
HP    |
D     + acct.number_ name_____ service. serv    er.depar  er.d
D     |          reason.for.visit_____
TKI   |
TP    |
TP    | xx.report.name_____
  
```

Now write a "start" macro. The macro will do the following:

- 1) Loop on the registration number index to look at ER visits for the user-selected date range.
- 2) Loop on the @MRI.PAT.visits segment for each patient, to look "back" and see if they had a prior ER visit within either 72 hours or 3 calendar days.

Here we use the registration index to loop on the ER visits.

```
@.facility→facility,  
IF{c.xx.select.option#"0"="72" 1→HRS},  
"ER"→status.type,  
c.xx.from→date,  
@Prev(date,@adm.reg.index),  
DO{@Next(date,@adm.reg.index)'>c.xx.to 1,  
DO{@Next(time,@adm.reg.index) 1,  
DO{@Next(urn,@adm.reg.index) 1,  
@CHECK.VISITS}}}
```

Loop on
registration index
for ER pts

Here we build a "visit subscript" from the current visit information, then loop on the visit subscript in MRI to go "backward" (from current ER visit to older visits). We stop if we have gone back more than 4 days, or if we find a qualifying prior visit. Qualifying means, a "pure er" visit (no inpatient admission on that account), and the departure date and time from that visit was either 72 hours or less or 3 calendar days or less from the service date and time of the current visit.

The visit subscript is built as follows:

```
?[EA,H544,US,79948884.8478|ER|U00013672] = →M.ERS→BAAD→→→U1000002495→Y→,Revisiting within 72
hours and within 3 days→Y→→→→→→→→→→
?[EA,H544,US,79948886.8483|ER|U00013664] = →M.ERS→BAAD→20051113→01→U1000002494→Y→First Visi
t - He will be back→Y→→→→→→→→→→
```

@mri.urn 99999999-date 9999-time status.type acct.number

```
@.facility→facility,
IF{c.xx.select.option#"0"="72" 1→HRS},
"ER"→status.type,
c.xx.from→date,
@Prev(date,@adm.reg.index),
DO{@Next(date,@adm.reg.index)'>c.xx.to 1,
DO{@Next(time,@adm.reg.index) 1,
DO{@Next(urn,@adm.reg.index) 1,
@CHECK.VISITS}}}
```

Loop on registration index for ER pts

We have set an HRS flag at the beginning of the macro. If HRS is true, we check elapsed time in hours between the er.departure.date and er.departure time of the older visit against the service date and service time of the most recent ER visit.

```
CHECK.ET
@er.depart.date[@MRI.PAT.visit.admit.urn]→DATE,
@er.depart.time[@MRI.PAT.visit.admit.urn]→TIME,
IF{DATE&TIME IF{%/2.elapsed.time(date,time,DATE,TIME,"hh.hh")<72.01 1→DONE,
1→URN[@MRI.PAT.visit.admit.urn]→/URN[urn]}}
```

Check elapsed time if that option selected.

```
CHECK.DAYS
@er.depart.date[@MRI.PAT.visit.admit.urn]→DATE,
IF{DATE IF{%/2.date.sub(date,DATE)<4 1→DONE,
1→URN[@MRI.PAT.visit.admit.urn]→/URN[urn]}}
```

Check calendar days if that option is selected

Two sample magic NPR reports have been uploaded to our report library:

ADM.PAT.zcus.is.er.readmits (uses er departure date/time) (C/S and Magic Versions)

ADM.PAT.zcus.is.er.readmits.no.depart (Magic only) - uses visit date/time of prior visit – if you don't use ER departure routine).

Note that the current visit (most recent) will be from the selected facility if you have multiple ADM facilities. The prior visit may come from a different facility. You could modify the macro if that behavior is not desired.

You can find additional NPR Tips on our website at <http://www.iatric.com/information/npr-tips.asp>, as well as information about our [on-site NPR Report Writer Training](#) and [NPR Report Writing Services](#).

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7. Newsletter Sign-Up/Contacting Us

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If you've received this newsletter via e-mail, you may give us feedback by simply replying to the e-mail. However, if you would like to reach someone directly, please feel free to contact one of the individuals listed below.

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