

TAI NEWS



TRI-ANALYTICS, INC.

Winter 1999

Vol. 6, No. 1

Highlights

Enhance Your QI with Control Charts
TAI Works with the STS
4th Annual User Conference Highlights
Screen Printing in Windows



Jump Start Your QI Efforts With Control Charts

Control charts, used in statistical process control (SPC), overcome the limitations of presenting data in tabular format by conveying dynamic variations in performance over time. Walter Shewhart largely developed the theory and tools for SPC in the 1920's while at AT&T. The basic objective of SPC is to distinguish *common* (expected) from *special cause* variation in systems or processes in order to make more informed management decisions.

A control chart lets you track a key quality characteristic (KQC) over time. A typical KQC could be lab test turnaround time or patient waiting time before seeing a physician. The chart includes the average value of the KQC and upper and lower confidence limits (UCL and LCL). The control chart is used to determine whether the system has only common cause variation (is "in control") or has special cause variation (not "in control"). The manager must then determine if the performance of an "in control" system is acceptable (e.g. the average lab test turn around time is 40 minutes with LCL and UCL of 18 and 64 minutes respectively). If that performance is not acceptable, the manager must plan and implement the changes needed to improve

continued on page 3...

Effortless Injury Coding: ICDMAP-90

The Center for Injury Research and Policy of the **Johns Hopkins** School of Public Health and **Tri-Analytics, Inc.** developed ICDMAP-90 injury coding software for Windows which uses input from injury coding experts and artificial intelligence to translate ICD-9-CM codes into AIS codes and severity scores. It computes:

- ▲ AIS-90 score
- ▲ Maximum AIS severity
- ▲ ISS
- ▲ ASCOT

ICDMAP-90 can also compute several frequency counts including those for:

- ▲ Maximum AIS values
- ▲ ISS values
- ▲ ABCD components
- ▲ Body region of principal diagnosis.

Use it interactively or for batch processing of data files. ICDMAP-90 allows for: import of ICD-9-CM codes, export of ICDMAP-90 computations, and accounts for AIS upgrades per AAAM guidelines. Over time, you will benefit from the faster, easier coding abilities of ICDMAP-90! ▲▲

For more information or to order, call Andy Copes
800-706-0337 or email: acopes@trianalytics.com.

STSVendor Certification Process



TAI is supporting the Society of Thoracic Surgeons (STS) National Adult Cardiac Surgery Database software certification process. The STS has released data definitions/specifications and invited vendors to develop software that will comply with those specifications. TAI will develop an auditors manual (a testing plan) and will use the auditors manual to audit (test) vendor software for adherence to the specifications as part of the Society's software certification process.

TAI's **Medical Database Consulting Services** include the creation of auditors' manuals and independent evaluations of vendor compliance. Ensuring data quality helps control costs and achieve superior results. Our experience managing large regional and national medical database projects demonstrates our commitment to the highest possible quality of data. Phone us to discuss your upcoming medical database management project and utilize our expertise. ▲▲

Regional Training Courses This Quarter

Collector training courses are offered throughout the year in various regions.

Individual training courses are also available at TAI.

Call us for details!

To sign up for a training session, contact Saron Mack at 410-879-6767 ext. 119, fax: 410-838-1148 or email: smack@trianalytics.com.

Most training courses have registration deadlines. Be sure to sign up as soon as possible to guarantee your spot!

Project IMPACT

January 22

Project IMPACT software training at the SCCM Conference in San Francisco, CA.

Individual Training

TAI offers one-on-one training at Tri-Analytics, Inc. in Bel Air, MD to meet your individual training needs. Contact TAI for available dates and prices.

Due to the holidays, our winter training schedule is lighter than usual. If you would like to schedule an individual training at TAI, now is the best time. Get it in before the busy season!

User Conference Highlights

Conference Speakers Share Bright Ideas



Stacy Ackroyd, Research Coordinator for Dalhousie University reviewed *The Trauma Registry: A Tool for Research*. Ms. Ackroyd highlighted the challenges and opportunities of research concluding that research leads to improvements in trauma care through passion, persistence, and patience.

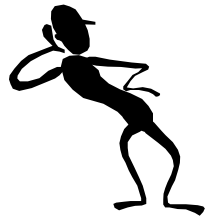
Maureen Brennan-Barnes, Data Analyst at Ottawa General Hospital and Jean Seguin presented *Using Collector for Cost of Quality of Life of Trauma Patients Research*, demonstrating the practical use of the Collector registry for quality improvement, resource utilization, outreach education, obtaining demographic and statistical information, and as a research tool. They were able to draw several vital conclusions about their health care system from their research using Collector. They emphasized that “the registry is a gold mine of information which can be used for many purposes other than just data collection and data entry.”

Robynn Gough, Trauma Program Manager at Mercy San Juan Hospital explained *Using Collector During Trauma Center Site*



Surveys. Ms. Gough gave the history of her recent experiences from several site visits and gave many practical ways to prepare for a site visit utilizing the registry. She showed several helpful reports created with Collector and concluded with additional ideas and tips for having a successful survey and emphasized the

importance of showing how you use your data to improve patient care.



Susan Kennedy, Trauma Coordinator for Washington Hospital Center in *How to Use Collector to Increase Revenues for the Sinking Trauma Service*, gave an overview of her facility and its history of changes in financial resources. Ms. Kennedy also presented statistics on MedSTAR and the Trauma/Burn Service at Washington Hospital Center. She then demonstrated how they used Collector to prove that all care is not uncompensated, identify sources of collectable services, eliminate waste, improve the Trauma system, and streamline their process.

Juliet Fischer, Trauma Coordinator at Lehigh Valley Hospital demonstrated *Using a Concurrent Trauma Registry Model to Monitor Outcomes and Improve Quality*, highlighting the expediency of changing their use of Collector from a retrospective to a concurrent registry and showing the practical use of the concurrent model to solve issues in their hospital. She emphasized the benefits of this model as financial savings, enhancement of QM process, and increased registrar job satisfaction.

Don Dove, Vice President of Tri-Analytics, Inc. reviewed *Using Control Charts in Trauma Quality Improvement Activities*, discussing the use of control charts in trending and quality improvement analysis using data from the Collector registry. He highlighted the cost, time, resources, legal issues, and available measurement tools which restrict quality improvement activities, as well as demonstrating several practical examples of how control charts could be used in QI efforts. Don't miss reading the article on control charts in this issue! ▲

Don't miss the excitement next year! Plan ahead and get the next User Conference in Baltimore, MD into your budget for 1999! Call 800-706-0337 or email: info@trianalytics.com for information.

We look forward to seeing you there!

Control Charts

continued from page 1

performance, and measure their effect.

Systems with special cause variation are not in control and investigation is necessary to determine the factors causing the highly variable performance. If appropriate, steps necessary to reduce variability should be taken and the effect of those actions measured. For example, it could be that excessive times to see a physician

are multidimensional and make use of audit filters defined by the American College of Surgeons Committee on Trauma; outcome evaluations using TRISS, ASCOT, or other models that control for injury severity; and locally defined CQI projects. The goal of these efforts is to quantitatively describe performance and patient outcomes with the goal of improving processes and outcomes and/or reducing the cost of care.

CQI specialists often recommend that an organization analyze the processes it uses to perform its mission. With the careful description

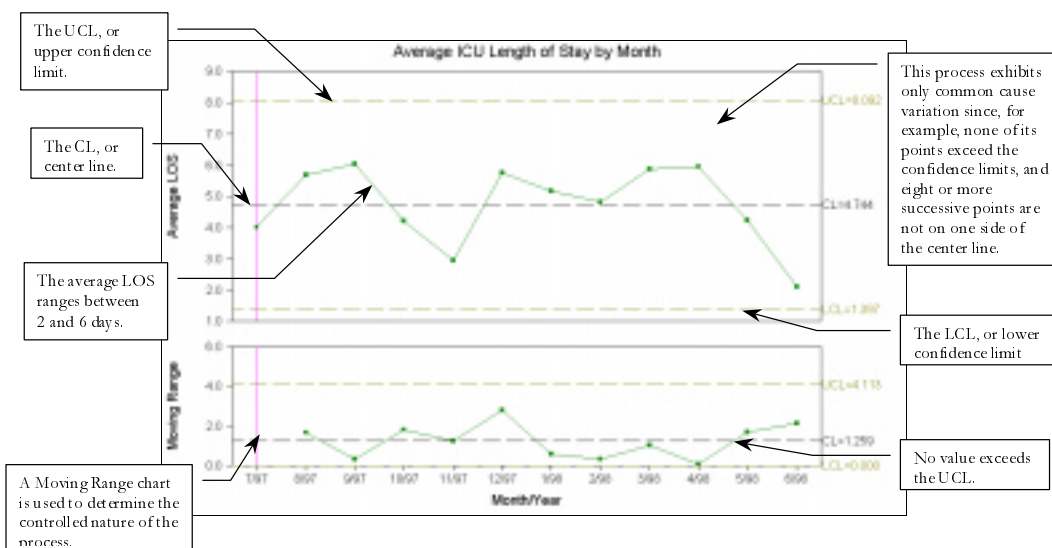
screen capture of the screen on the windows clipboard where it can be pasted into a word-processing program



(e.g. Corel WordPerfect, MS Word, Lotus) or graphics program (e.g. Paintbrush), and then printed. You can also press Alt + Print Screen to copy capture the active window instead of the entire screen. To paste the screen capture into another program, open that program, choose "Paste" from the Edit menu, then print the page. As an alternative, there are commercial software packages available that will allow you to use the Print Screen key as you did in DOS. Most programs cost between \$50 and \$75 depending on the additional features they contain. Check with your local software store for more information. ▲▲

If you have a question for the Tech Nerd, send it to:

Attn.: Tech Nerd
Tri-Analytics, Inc.
23 Ellendale St, Suite A
Bel Air, MD 21014
fax: 410-838-1148
email: newsletter@trianalytics.com



occur on nights or weekends. Management must determine if the additional resources required to reduce those wait times will be made available.

There are several types of control charts and each is appropriate for certain problems. However, a discussion of all the options is beyond the scope of this article. For studying medical processes, the *Individuals Chart* is often the most appropriate one.

The sample control chart shown is one that is displaying an "in control" system. The KQC is ICU length of stay. In this scenario, even though the process is in control, the manager may wish to review the ICU length of stay to see if it is within an acceptable range.

Trauma center quality improvement programs

of a process and a well-conceived data collection effort, performance can be quantified and if found to be unsatisfactory or not in control, changes intended to improve or regulate the process can be devised and implemented, and their effect on the process evaluated. Such ongoing measurement, evaluation, and modification is indeed the key to continuous quality improvement. ▲▲

Dear Tech Nerd:

Q: How do I print out my screen in Windows?

A: In a Windows environment, the Print Screen key no longer prints out the current screen as it did in DOS. Instead, it places a "picture" or

Credits

Editor-in-Chief

Saron Mack

Contributing Editor

Karen Milanicz

Contributing Writers

Larry Bain, Andy Copes, Wayne Copes,
John Kutcher

Proofreaders

Don Dove, Barb Rosolowski

©1998 Tri-Analytics, Inc. All rights reserved.

What's New?



Y2K Progress Update

TAI is pleased to announce that Digital Innovation, Inc. (DI) has completed the Y2K-compliant version of the CVW database engine used by Collector. Y2K conversions are currently under way at DI in earnest, and the following Collector systems are now Y2K compliant:

- Standard Trauma Registry
- Corpus Trauma Registry (TX)
- Emanuel Trauma Registry (OR)
- Maryland Trauma Registry (MD)
- Swedish Trauma Registry (Sweden)
- Waikato Trauma Registry (New Zealand)
- WHC Trauma Registry (DC)

Any questions about the Y2K status of your version should be directed to TAI at 800-706-0337 or info@trianalytics.com or to DI at 800-344-3668 or support@dicorp.com.

New Number for Collector Technical Support

As of January 1, all Collector Trauma and EMS technical support will be handled by our software development partner, Digital Innovation, Inc., developers of the Collector Windows software. They do an excellent job providing technical support for the Collector products and look forward to serving you in the new year. You can reach them at:

- ▲ toll-free: 800-344-3668
- ▲ phone: 410-838-4034, ext. 4
- ▲ fax: 410-893-3199
- ▲ email: support@dicorp.com

If you have any questions or concerns, please contact Don Dove at 410-879-6767 ext. 104. As always, he will be glad to be of service! 📞

For more information, call 800-706-0337
or email: info@trianalytics.com.

Establish a Web Connection

In coming months, TAI will focus on upgrading our web site. Many of your organizations have web sites that would interest other TAI clients. We would be happy to provide links to such sites. Or, if you can suggest web sites with interesting content for our clients, please let us know. Please send suggestions for web links to smack@trianalytics.com.

Change of Name/Address?

Please phone 800-706-0337 or email: newsletter@trianalytics.com
Thank you for your help!

Ideas & Suggestions

If there are topics you'd like to have addressed in future newsletters, please contact TAI at 800-706-0337 or email us at newsletter@trianalytics.com.