CQI
CQI

2000年6月

...
I. Continuous Quality Improvement

1. Continuously Improving Processes and Systems
2. Quality Improvement Techniques

II. Statistical Process Control

1. Continuous Quality Improvement
2. Statistical Process Control
3. Statistical Process Control

III. Statistical Process Control

1. Statistical Process Control
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1. ¿¬±¸¹è°æ
ÀÇ·áȯ°æÀǺ¯È­´ÂÁúº´±¸Á¶, ÀÇ·á¼­ºñ½ºÀÌ¿ëÇüÅÂ, ÀÇ·áü°è, ±¹¹ÎÀÇ
½ÄµîÀǺ¯È­¸¦°¡Á®¿Ô°í, ÀÇ·á°èÁÖº¯¿©°Ç¿ª½Ãº´½Ç·á´ÜÀÔÁ¦
½Å¿ëÄ«µå, ÀǾàºÐ¾÷, À±ÅÃÁø·áÁ¦, Æ÷°ý¼ö°¡Á¦È®´ë½Ç½Ã
¾àÁ¦ºñ½Ç°Å·¡°¡»óȯ, ÀÚµ¿Â÷º¸Çè¼ö°¡ÀÎÇÏ
Á¦, ÀÚµ¿Â÷µîÁ¦µîº´¿ø¿¡À־µµ¸¹Àºº¯È­¸¦¿ä
±¸ÇϰíÀÖ´Ù (À̰æ¹Ì, 1999).
ÀÌ·ÎÀÎÇѺ´¿øÀǼöÀͼº°¨¼Ò´Âº´¿ø»ýÁ¸À»
À§ÇùÇϰíÀÖÀ¸¸ç, °í°´µéÀǾçÁúÀÇÀÇ·á¼­ºñ½º¿¡´ëÇѱâ´ë¿Í¿å±¸´Âº´¿ø
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À»¿ä±¸ÇϰíÀÖ´Ù.
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ÁßÇϳª·Î
Continous Quailty Improvement (CQI, ¿¬±¸¹è°æ)
Total Quality Management (TOM, ¿¬±¸¹è°æ)¿¡°ü½ÉÀ»µÎ´Âº´¿øµé
À̴þ°ÔµÇ¾ú´Ù (±è¿Á³²µî, 1999).
º´¿øÀº°æÀï·ÂÀ»È®º¸ÇϱâÀ§ÇØ¿©·¯°¡Áö¹æ¾ÈÀ»¸¶·ÃÇϰíÀ̸¦½Çõ
ÇϰíÀִµ¥, ÀÌÁßÇϳª°¡Á¤º¸±â¼úÀ»È°¿ëÇϴº´¿øÀÇÁö½Ä°æ¿µÀ̶óÇÒ
¼öÀÖ´Ù.
¾ÕÀ¸·ÎÀǺ´¿ø°æ¿µÀºÁ¾Àü°ú´Â´Þ¸®È¯ÀÚ¿¡°ÔÃÖ¼ÒÀÇÀûÁ¤¼­ºñ
- 1 -
統計的プロセス制御（SPC, Statistical Process Control）


このページに記載されている内容は、図形やテーブル、または特定の形態で記載されているものではありません。そのため、自然なテキスト形式への変換は困難です。
2.  

...
1. Continuous Quality Improvement

"Continuous Quality Improvement" (CQI) is a methodology focused on the ongoing improvement of processes and products to ensure higher quality outcomes. It is an integral part of Total Quality Management (TQM) and is characterized by the following key elements:

- Quality Control (QC)
- Quality Assurance (QA)
- Continuous Quality Improvement (CQI)

QC focuses on identifying and correcting defects after they occur, whereas QA is concerned with ensuring that products meet predefined standards before they are released. CQI, on the other hand, involves proactive efforts to improve processes and prevent defects from occurring in the first place.

- 6 -
QA

QA

CQI

CQI

20

1981

- 7 -
QA - Utilization Review (Joint Commission on Accreditation of Hospitals)

- 1987
- 1994
- 1995

- CQI
CQI: Continuous Quality Improvement

CQI began in the early 1960s with the development of Quality Control (QC) circles and Total Quality Management (TQM) in Japan. Juran, Deming, and others contributed to the development of TQM, which gained prominence in the 1980s. TQM involves the participation of all employees in improving the quality of products and services. It includes benchmarking (benchmarking) and incorporates TQM principles in various organizations. In 1980, Ford began implementing TQM, and in 1981, the Harvard Community Health Center, Hospital Corporation of America, and Intermountain Health System began TQM initiatives.
2. データマイニング

・データマイニングの歴史

データマイニングは、情報の抽出と分析を目的とするデータベース管理システム（DBMS）の一部です。データマイニングは、データベースから潜在的な知識を見つけ出すための技術です。データマイニングは、データマイニングの歴史が1995年に開始され、KDD（Knowledge Discovery in Database）と呼ばれます。KDDは、データマイニングの可能性を発見するために設計されたもので、データマイニングの利用がますます増えてきています。
KDDに関する「データ科学」の研究として、「データマイニング」の分野が注目されています。KDDは、データマイニングに関する国際的な研究会であり、学術的な成果を発表し、データマイニングの進歩を促進しています。KDDに関する研究は、データマイニングの手法の開発と適用、データマイニングの実用化、データマイニングの応用分野、データマイニングの理論の研究など、多岐にわたります。KDD研究は、データマイニングの研究者や関係者、企業界の関心が高まっている分野です。

図1. データマイニングの概念図
1) KDD (Knowledge Discovery in Database)

1. KDD (Knowledge Discovery in Database)  
   KDD is a process of discovering knowledge from data. KDD is used in various fields such as data mining, data warehousing, and OLAP (On-Line Analytical Processing). KDD is also used in the field of machine learning.

2) Machine Learning

Machine Learning is a subfield of AI that focuses on developing algorithms that enable computers to learn from data and make predictions or decisions without being explicitly programmed.

3) Pattern Recognition

Pattern Recognition is the study of algorithms and methods that enable computers to recognize patterns in data. It is used in various fields such as image recognition, speech recognition, and natural language processing.

4) Statistics

Statistics is the study of the collection, analysis, interpretation, and presentation of data. It is used in various fields such as finance, economics, and social sciences. Discriminant analysis, a statistical technique, was introduced by R. A. Fisher in 1936.
5) 神經計算 (Neurocomputing)

例: 週知, 神經計算的研究範圍广泛, 包括人工智能、模式識別和其他相關領域。[1999].

1) 抽樣 (Sampling)

抽樣是統計學中的一個重要概念, 其目的是從一個更大的群體中選取一個代表性的子集。抽樣可以用簡單隨機抽樣 (Simple Random Sampling)、分層抽樣 (Stratified Sampling)、系統抽樣 (Systematic Sampling) 等方法進行。
2) (Exploration)

3) (Modification)
4) □ □ (Modeling)

- Neural Networks, CHAID, CART, [Internet site](http://www.cio.com/archive/100196_inws_content.html).

5) □ □ (Assessment)

(Internet site).
1)  

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<th>(induction rule)</th>
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2)  

- 17 -
(Lee DH, 1998).  

(association rules) (minimum support) (minimum confidence) (Kim SM, 1998).

(Lawrence, 1997).
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3. Statistical Process Control

Statistical Process Control (SPC) is a statistical method used in quality control to monitor and control a process over time. 

SPC is comprised of three main parts: 
- 'S(Statistical)' - 1961
- 'P(Process)' - 1967
- 'C(Control)' - 1961

PDCA (Plan, Do, Check, Act) is the main framework used in SPC.
QC

(quality control)

QC (Quality Control), QI (Quality Improvement), QA (Quality Assurance)

TQM (Total Quality Management)

SPC (Statistical Process Control)

W. A. S. Hewhart

(control limits), (1924, 1998).
Statistical Process Control

1) Managed Care

2) Managed Care

- 23 -
Jeffrey, 1998).

3)  

4)  

Statistical Process Control (Clinical Outcomes)

1)  (Clinical Outcomes)
2) Clinical Process

SPC Áø·á°úÁ¤ (Clinical Process) SPÁø·á°úÁ¤¿¡Àû¿ëÇϴ°ÍÀºÀåºñ, Àý·áµî¿¡±âÀÎÇÑ ÀÇ·áÀÇÁúº¯µ¿À»¹àÈ÷¸ç ¿¡Á¦´ë·Î´ëÀÀÇϸ鼭µ¿ÀϼöÁØÀÇÀÇ·á¼­ºñ½ºÀÇÁúÀ»À¯ÁöÇÒ¼öÀÖµµ·Ï¸ð´ÏÅÍÇÒ¼öÀÖµµ·ÏÇϴµ¥¿¡±×¸ñÀûÀÌÀÖ´Ù.

3) Service Processes (Service Processes)

SPC Áø·á°úÁ¤ (Service Processes) SPÁø·á°úÁ¤¿¡Àû¿ëÇϴ°ÍÀºº´¿øÇàÁ¤¿¡±âÀÎÇѺ¯µ¿À»È®ÀÎÇϰųª°³¼±À»½ÃµµÇÑÈÄÀÇÀÇ·áÀÇÁúÇâ»óÀ»¸ð´ÏÅÍÇÒ¼öÀÖµµ·ÏÇÏ´Âµ¥¿¡±×¸ñÀûÀÌÀÖ´Ù. Áø·áºñ°è»êÀÇÁ¤È®µµ ¿¹¾àºÎµµÀ², Àΰø¼öÁ¤ÀÇ½ÇÆÐÀ², °Ë»ç»ç°íµîÀÌÀÖ´Ù.

4) Patient Outcomes (Patient Outcomes)

SPC Áø·á°á°ú (Patient Outcomes) SPÁø·á°á°ú¿¡Àû¿ëÇϴ°ÍÀº¾à¹°Åõ¿©¿¡´ëÇѹÝÀÀÄ¡¿Í½ÇÁ¦Ä¡ÀǺ¯µ¿µîÀ»ÆÄ¾ÇÇϴµ¥±×¸ñÀûÀÌÀÖ´Ù. Áø·áºñÇ÷¾Ð, ½É¹Úµ¿, Ç÷´çÄ¡, I/O, üÁß, ü¿Â, Ç÷¼ÒÆÇ¼öµîÀÌÀÖ´Ù (´ëÇÑÀǹ«±â·ÏÇùȸ, 1999).
III. ])[½º½º]

1. ½º½º

1996년 1월 1일부터 1999년 12월 31일까지의 4년간의 K 전자사의

- 88,593명의 일자리 청구자 중 343명 (Quality Problem)
- 884명의 일자리 청구자 중 343명 (Quality Problem) 36%
- 1,281명의 일자리 청구자 중 242명 (Quality Problem)
- 1,523명의 일자리 청구자 중 242명 (Quality Problem).
2. 图形表示

2. 图形表示

- SPC

- CQI

- SPC
2. CQIを含むDB の構築と利用

DB はCQI、SPC を含むDB の構築と利用が必要です。Access PC はDB の構築にCQI を含むDB の構築と利用が必要です。DB はCQI を含むDB の構築と利用が必要です。DB はCQI を含むDB の構築と利用が必要です。DB はCQI を含むDB の構築と利用が必要です。

3. 3. Continuous Quality Improvement

Continuous Quality Improvement は、急的な改善を可能にします。UHDDS(Uniform Hospital Discharge Data Set) は、急な改善を可能にします。1974年から1986年まで、Medicare, Medicaid は、急な改善を可能にします。1974年から1986年まで、Medicare, Medicaid は、急な改善を可能にします。
A quality problem (Quality Problem) is an issue that arises in databases (DB) and their management.

1. The database management 1996 issues 1999 issues are often cited in the literature. DB issues are often discussed in the context of their impact on data integrity and reliability. For example, 110 issues were discussed in 1996, and 78 issues in 1999. In the field (field), these issues are often cited as significant.

In summary, a quality problem (Quality Problem) is an important issue in database management that needs to be addressed.
1. 一覧表 例示

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DB

Readmission for complication/incomplete management on previous hospitalization

Admission for adverse results of outpatient management

Procedure organ perforation, laceration, tear injury

(Perforation, laceration, tear or injury of an organ incurred)
4. Unplanned return to operating or delivery room on this admission

5. Drug/transfusion reaction, complication or improper utilization

6. Excessive blood loss at / after delivery or surgery

7. Cardiac arrest or myocardiac infarction during or within 48 hours of a surgery

8. Nosocomial infection

9. Cardiac or respiratory arrest except death

10. Hospital- incurred patient incident

11. Unexpected death
4. Statistical Process Control

Access\textregistered\, SAS\textregistered\, and SQC were used in the statistical process control procedures.

SAS\textregistered\, and Enterprise Miner\textregistered\, were used in the statistical process control procedures.

Raymond 1997).

5.
Decision Tree

6. \( A \Rightarrow B' \) \( \Rightarrow \) \( A \subset B \)

\[ A = \neg B', \text{ or } B \supset A \]

\( A = \neg B', \text{ or } B \supset A \)

\( A = \neg B', \text{ or } B \supset A \)

\( A = \neg B', \text{ or } B \supset A \)

\( A = \neg B', \text{ or } B \supset A \)

(\( \ldots \), 1998).
IV. 

1. 88,593人 合計 50.7%, 女性 49.2%

20歳未満 30.3%, 21-40歳 28.4%, 41-60歳 23.6%, 61歳以上 17.6%

20歳未満 14.%, 21-40歳 10.9%, 41-60歳 10.4%

20歳未満 95.1%, 21-40歳 3.7%, 41-60歳 1.2%

28歳未満 5.3%, 28-30歳 37.1%, 31-40歳 62.9%

1%, 99% 2)
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| 28hr |     |     |     |     |     |     | 32,906 | 37.1  |
|      | 55,687 | 62.9 |     |     |     |     |     |     |
|      | 88,593 | 100.0 |     |     |     |     |     |     |

| (Quality Problem) |     |     |     |     |     |     | 88,709 | 99.0  |
|                  |     |     |     |     |     |     | 88,593 | 100.0 |
2. Statistical Process Control

DB, SPC, DB, SPC, DB, SPC

3. DB, SPC, DB, SPC, DB, SPC

3. DB, SPC, DB, SPC, DB, SPC

3. DB, SPC, DB, SPC, DB, SPC

3. DB, SPC, DB, SPC, DB, SPC
3. ³ª¹«ºÐ¼®À»Àû¿ëÇÏ¿´°í

1) ³ª¹«ºÐ¼®À»Àû¿ëÇÏ¿´°í

 económ. Root ASE 0.27

2) ³ª¹«ºÐ¼®À»Àû¿ëÇÏ¿´°í

 economical. Root ASE

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24
図4．図の説明

1．図の説明

2．図の説明

- 39 -
14.3%
100% 3% 60%

13.2% 0.5% 61%

13.3% 181% 61%

100% 60% 22.7% 14.3% 0% 100%
3)  

4)  

1)  

IF  

EQUALS  

- 42 -
THEN

NODE: 2
N: 31

º´¿ø°¨¿°¹ß»ýÈ®·ü: 100%
º´¿ø°¨¿°¹Ì¹ß»ýÈ®·ü: 0%

IF ¿¬·É EQUALS 61 AND µ¿¹ÝÁúȯ EQUALS À¯ AND ¼ö¼ú¸í IS ONE OF : À̳ú¼ö¼úµîÁßÀÇÇϳªÀ̰í THEN

NODE: 17
N: 26

º´¿ø°¨¿°¹ß»ýÈ®·ü: 61.5%
º´¿ø°¨¿°¹Ì¹ß»ýÈ®·ü: 38.5%
### 4. 数学数据表

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1) 为便于理解，数据已按照日期进行分类。
| 2) 메모 | : | | | | | | | 
| 3) 메모 | : | | | | | | | 
| 4) 메모 | : | | | | | | | 
| 5) 메모 | : | | | | | | | 
| 6) 메모 | : | | | | | | | 
| 7) 메모 | : | | | | | | | 
| 8) 메모 | : | | | | | | | 
| 9) 메모 | : | | | | | | |
4) Node-by-Node Analysis

... (10...). 6) Node-by-Node Analysis. ‘Node’/
... ‘Node’/
... ‘Resp. n’/
... ‘Gain (%)’
... ‘Index (%)’

... [1,998].

... 22%.

... 12.8%.

... 100%

... 628.93%.

... 628.93%.
Gain (%)  22.7%  14
Index (%)  142.76  14
1.4%
15°  30°
90°
30°  31° (5).
- 47 -
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5) µ¥ÀÌÅ͸¶ÀÌ´×±â¹ýÀ»ÅëÇØµµÃâµÈº´¿ø°¨¿°¹ß»ý±ÔÄ¢¿¡´ëÇÑ

(Actual Category) Áö±Ý±îÁö³ª¹«±¸Á¶Àdz¡¸¶µð¿¡´ëÇÑÆò°¡·Î¼­ÀÌÀ͵µÇ¥¿¡ÀÇÇѺ´¿ø°¨ ¿°¹ß»ýÀ§ÇèÁý´ÜÀ»¼±Á¤Çغ¸¾Ò´Ù

(Predicted Category) Áö±Ý±îÁö³ª¹«±¸Á¶Àüü¿¡´ëÇÑÆò°¡·Î¼­½ÇÁ¦

¹üÁÖ (Actual Category) ÀÇÀ§Ç赵ǥ (Predicted Category)

º´¿ø°¨¿°Àǹ߻ý¿©ºÎ¸¦¿¹ÃøÇѰ¨¼ö¼º (Sensitivity), º´¿ø°¨¿°¹Ì¹ß»ýÀ¸·ÎºÐ·ùµÈȯÀÚ¸¦º´¿ø°¨¿°¹ß»ýȯÀÚÀÇÇÕÀ»ÀüüȯÀÚ¼ö·Î³ª´«¿¹Ãøµµ (Correct Prediction Rate)º´¿ø°¨¿°¹ß»ýȯÀÚ¸¦º´¿ø°¨¿°¹ß»ýȯÀڷο¹ÃøÇϴºñÀ²·Î 82.15%, ªÀ̼ºÀº½ÇÁ¦º´¿ø°¨¿°¹Ì¹ß»ýȯÀԆο¹ÃøÇѰ¨¼ö¼º 83.3%º´¿ø°¨¿°¹ß»ýȯÀڷο¹ÃøÇϴºñÀ²·Î 82.79%

7.  "º´¿ø°¨¿°¹ß»ýȯÀÚÀÇÀ§Ç赵ǥ" (¿¹Ãøµµ)  º´¿ø°¨¿°¹ß»ýº´¿ø°¨¿°¹ß»ýºè 626(82.15) a 135(17.71) 762(100.00) 82.79%

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<th>762(100.00)</th>
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| a: Sensitivity | b: Specificity

- 52 -
4. ¿¬°ü¼º±ÔÄ¢À»È°¿ëÇѺ´¿ø°¨¿°¹ß»ýȯÀÚÀÇÇÕº´

ÁúȯƯ¼ºº´¿ø°¨¿°È¯Àڵ鿡°Ôµ¿¹ÝµÇ´Â°¨¿°ÀÇÁ¾·ù¹×Ư¼ºÀ»ÆÄ¾ÇÇϱâÀ§

ÇØº´¿ø°¨¿°È¯ÀÚ±ºÀÇÁÖÁø´Ü¸í°úÇÕº´ÁõÁø´Ü¸í°úÀÇ¿¬°ü¼º±ÔÄ¢À»Àû¿ëÇß

¿ä·Î°¨¿°ÀÌÁÖÁø´ÜÀΰæ¿ì¿øÀαÕÀ̵Ǵ´ëÀå±ÕÀ̱âŸÁø´ÜÀ¸·Î³ª ¿ÃÈ®·üÀÌÀϹÝȯÀÚº¸´Ù 4
¹è³ª³ô´Ù´Â°ÍÀ»¾Ë¼öÀÖ´Ù 469
¼ö¼úºÎÀ§ÀÇÆÄ±«

¶ó´ÂÁø´Ü¸íÀ»°¡ÁøÈ¯ÀÚ°¡¼ö¼úºÎÀ§ÀÇâ»ó°¨¿°À̸¹´Ù´Â°ÍÀ»¾Ë¼öÀÖ¾ú´Ù
ÇÑ´Ù. ¶ÇÇѳú³»ÃâÇ÷À̶ó´ÂÁø´Ü¸íÀ»°¡ÁøÈ¯ÀÚ°¡µµ´¢°üÀ¸·ÎÀÎÇÑ¿ä·Î°¨¿°¹×¼ö¼úÈÄâ»ó°¨¿°À̸¹´Ù´Â°ÍÀ»¾Ë¼öÀÖ¾ú
´Ù (Ç¥ 8).
### 8. 以下の結果を示す

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等で結果を表示する。
5. Continuous Quality Improvement

Continuous Quality Improvement (CQI) involves a systematic approach to improving the quality of products or services through continuous improvement of processes. This approach focuses on identifying and addressing the root causes of defects or issues in processes. CQI is often associated with the Deming cycle or PDCA (Plan-Do-Check-Act) model, which is a framework for continuous improvement.

S. CQI projects are implemented within organizations to enhance the quality of their processes. These projects may involve various techniques, such as statistical process control, Kaizen events, and continuous improvement teams. The goal is to achieve a significant reduction in defects and improve overall efficiency and customer satisfaction.

S. The success of CQI projects depends on the commitment of top management, the involvement of frontline workers, and the use of effective tools and methods. A well-implemented CQI program can lead to significant improvements in process performance and customer satisfaction.

S. For example, a study by Jones et al. (1988) found that CQI programs can result in a 50% reduction in defects. The study also highlighted the importance of involving all employees in the improvement process and providing them with the necessary training and support.

S. In conclusion, CQI is a powerful tool for improving the quality of products and services. By focusing on continuous improvement, organizations can achieve significant gains in efficiency and customer satisfaction.
¹æ±¤¼ö¼ú，¿äµµ¼ö¼ú，°©»ó¼±¹×ºÎ°©»ó¼±¼ö¼ú，°ñÀÇÀý°³ÀýÁ¦¹×ºÐ¸®¼ú，°üÀýÀÇÀý°³¹×ÀýÁ¦¼ú，°üÀýÀç°Ç¼úÁß¾î´ÀÇϳª¸¦½ÃÇà
¹Þ¾Ò°íµ¿¹ÝÁúȯÀÌÀÖÀ¸¸çÁúȯ¸íÀ̽Űæ°èÁúȯ，ÁÖ»ê±âº´ÅÂ，±âŸÁõ»ó，°Ç°­»óÅ¿¡¿µÇâÀ»ÁÖ´ÂÁõ»óÀΰæ¿ì¿´´Ù
¼Â°，ÁÖÈ£¼Ò°¡½Å°æ°è¹×°¨°¢°èÀ̸鼭Çô¼ö¼ú，Æíµµ¹×¾Æµ¥³ëÀ̵å¼ö¼ú
Àӯİè¼ö¼ú，Ãæ¼öµ¹±â¼ö¼ú，½ÅÀå¼ö¼ú，Àü¸³¼±¹×Á¤¾×³¶¼ö¼ú，³­¼Ò¼ö¼ú，ÀÚ±ÃÀý°³¹×ÀýÁ¦¼ú，¾È¸é°ñ¹×°üÀý¼ö¼ú
±×¿Ü°ñ¼ö¼ú，°ñÀý¹×Å»°ñÁ¤º¹¼ú，±Ù¡¤°Ç¡¤°Ç¸·¹×Ȱ¾×³¶¼ö¼ú，±âŸ°ñ°üÀý¼ö¼ú
ÇǺι×ÇÇÇÏÁ¶Á÷¼ö¼úÁß¾î´ÀÇϳª¸¦½ÃÇà¹Þ¾Ò°íµ¿¹ÝÁúȯÀ̾ø´Â°æ¿ì¿´´Ù
³Ý°，¼ö¼ú¸íÀÌÀå°üÀÇÀý°³，ÀýÁ¦¹×¹®ÇÕ¼úÁß¾î´ÀÇϳª¸¦½ÃÇà¹Þ¾Ò°íµ¿¹ÝÁúȯÀÌ
ÀÖÀ¸¸é¼­，¿¬·ÉÀÌ 41-50Àعطي´ÚÀαι¿ì¿´´Ù
³Ý°،¼ö¼ú¸íÀÌŸ¾×¼±¼ö¼ú，Èĵμö¼ú，Æó¹×±â°üÁö¼ö¼ú，½ÉÀåÆÇ¸·
¹×Á¾°Ý¼ö¼ú，½ÉÀåÇ÷°ü¼ö¼ú，±âŸÇ÷°ü¼ö¼ú，°ñ¼ö¹×ºñÀå¼ö¼ú，À§Àý°³¹×ÀýÁ¦¼ú，Àå°üÀý°³，ÀýÁ¦¹×¹®ÇÕ¼ú
±âŸÀå°ü¼ö¼ú，Á÷Àå¹×Á÷Àå-S»ó°áÀå¹×ÁÖÀ§Á¶Á÷¼ö¼ú，´ã³¶¹×´ã°ü¼ö¼ú，º¹º®Àý°³¼ú，¹æ±¤¼ö¼ú，¿äµµ¼ö¼ú，°©»ó¼±¹×ºÎ°©»ó¼±¼ö¼ú，°ñÀÇÀý°³Àý
Àå°üÀý°³，ÀýÁ¦¹×¹®ÇÕ¼ú，±âŸÀå°ü¼ö¼ú，Á÷Àå¹×Á÷Àå
- 56 -
±×½ÅÀå¼ö¼ú
ÀýÁ¦¼ú
¾È¸é°ñ¹×°üÀý¼ö¼ú
±×¿Ü°ñ¼ö¼ú
°ñÀý¹×Å»°ñÁ¤º¹¼ú
±Ù¡¤°Ç¡¤°Ç¸·¹×Ȱ¾×³¶¼ö¼ú
±âŸ°ñ°üÀý¼ö¼ú
ÇǺι×ÇÇÇÏÁ¶
ÀýÁ¦¼úÁß¾î´ÀÇϳª¸¦½ÃÇà¹Þ¾Ò°í
¼ö¼ú½Ã°£ÀÌ 3
½Ã°£ÀÌ»óÀÌ
Àýµ¿ 21-30，51-60
Àýµ¿ 61

Àýµ¿ 21-30，51-60
Àýµ¿ 61
Turck (1981) 60% 40% 80%
(Pseudomonas Aeruginosa) DB を使用する

1. SPC と CQI を用いることで、より効果的な使用が可能となる。これにより、菌の耐性に対

2. するリスクを低減することができる。CQI は特に、耐性の進化に対

3. する対策として有用である。

4. これらの薬剤の使用を、DB と SPC を併用することで、より効果的に

5. 菌の耐性を抑制することが可能となる。
この文脈においては、CQI（Continuous Quality Improvement）を計画し、実施するための手順や戦略を検討することが重要です。CQIは、組織の品質向上を目的とした活動を指し、常に改善を追求することを通じて、組織全体の成長と発展を促進します。
VI.  

DB: 40, 88,593

DB: 24, 9

DB: 23, 6

DB: 3.8%

DB: 23.1%
Cho JH. Reengineering of enterprise information analysis environment by data warehousing. SIGDM'98 1998; 1: 5-33


Internetsite[http://www.cio.com/archive/100196_inws_content.html]


Kim SM, Lee DH, Nam DW, et al. Concept hierarchy control method for knowledge discovery in relational database. KESS
Lawrence SB. Data Mining: Sophisticated forms of managed modeling through artificial intelligence. J of Health Care Finance 1997; 23(3): 20-36


Raymond GC, Robert CL. Quality with confidence in healthcare, 1997


Turck M, Stamm W. Nosocomial infection of the urinary tract. AmJ MED 1981; 70: 651-70
Abstract

An application of datamining approach to CQI using the discharge summary

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This study provides an application of datamining approach to CQI using the discharge summary. First, we found a process variation in hospital infection rate by SPC (Statistical Process Control) technique. Second, importance of factors influencing hospital infection was inferred through the decision tree analysis which is a classification method in data-mining approach. The most important factor was surgery followed by comorbidity and length of operation. Comorbidity was further divided into age and principal diagnosis and the length of
operation was further divided into age and chief complaint.

24 rules of hospital infection were generated by the decision tree analysis. Of these, 9 rules with predictive power greater than 50% were suggested as guidelines for hospital infection control. The optimum range of target group in hospital infection control were identified through the information gain summary.

Association rule, which is another kind of datamining method, was performed to analyze the relationship between principal diagnosis and comorbidity. The confidence score, which measures the degree of association, between urinary tract infection and causal bacillus was the highest, followed by the score between postoperative wound disruption and postoperative wound infection.

This study demonstrated how datamining approach could be used to provide information to support prospective surveillance of hospital infection. The datamining technique can also be applied to various areas for CQI using other hospital databases.