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Report on the Casemapping Education Project for Hungarian Hospitals

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Prepared by the
Hungarian American Coalition

George J Pogan, FACHE and Geoffrey D Liss, MBA

Final Report on the Casemapping Education Project for Hungarian Hospitals

November 8-25, 1998

The Casemapping Project for Hungarian Hospitals was designed to provide an overview of casemapping techniques and how the maps can assist in the hospitals' efforts to improve both the quality and cost of care The USAID consultants were assisted by a team from the Gabor Katai Hospital in Karcag

The team included a Physician, Nursing Director and the Chief of Informatics who had participated in the 1995 Casemapping Project that was funded by USAID Their prior experience with casemapping as well as their intimate knowledge of hospital processes and internal politics were an essential part of our strategy to promote the expanded use of casemapping throughout Hungary

At the beginning of the program the process and additional materials for the hospitals to begin to examine the diagnosis specific cost and quality of care delivered at the hospitals process were introduced The steps needed to implement casemapping in each hospital were emphasized The major part of the time spent involved "hands on" casemap development in small group sessions by the participants and comparisons with actual casemaps done by other (US) hospitals for that diagnosis, then comparing and discussing the process, costs and outcomes in an open forum Each team selected a coordinator and that coordinator reported the results from the small group sessions The results were then discussed and compared with other examples At the end of the project all the casemaps that were developed at the sessions will be shared with the host hospitals that in turn can distribute copies of them to the other participants

The Project was conducted on site between the dates of November 8, and November 25, 1998 The program was conducted first hospital was Margit Korhaz, Csorna a 250 bed community hospital, in the northwestern part of the country, the second, Markusovsky Korhaz, Szombathely, a 1373 bed university teaching hospital with over 300 physicians on the far western part of the country bordering Austria, the third, the National Institute for Medical Rehabilitation a 530 bed rehabilitation hospital serving the entire country located in Budapest, the fourth, Debrecen Medical University (DOTE) the teaching hospital for the medical school on the eastern side of the country, and the fifth, Karcag's Katai Gabor Hospital, a 400 bed community hospital in the southeastern part of the country The schedule of hospital program dates is attached in Appendix A

Eighteen hospitals were represented at the five sessions There were a total of 162 participants The participants represented a wide cross section of the skills in the hospitals (See Appendix B) The first third of the two days session involved lectures that described case maps and the variety of ways to develop case maps We also introduced the idea that reimbursement and cost accounting could be enhanced by the integration of case maps

The bulk of the seminar involved small group, break out sessions Each group was assigned a DRG and asked to prepare a case map that would describe the typical order and magnitude of events throughout a patient's episode of care Each team selected a coordinator and that coordinator reported the results from the small group sessions The results were then discussed and compared with other examples

At each of the five sites, the groups engaged in lively discussions about the draft case maps that had been developed The consultants presented samples of case maps that had been developed by medium size, community hospitals in the U S

The use of related case maps from the U S was intended to illustrate several things including the similarities and differences that might result We were presenting case maps that were the product of months or sometimes years of work to case maps which were developed, without the benefit of text books or charts, by the Hungarian medical staff The comparisons did reveal that many differences in practice protocols were dictated by the relative scarcity of resources in Hungary versus those hospitals in the U S However, where those differences in resources were not a factor, there were surprisingly few differences in the case maps other than the medically unnecessary delays in discharging the patient (typical throughout Eastern Europe)

As one might expect, the draft case maps did not comport with the actual delivery of care that was found by reviewing a sample of patients' charts The group's consensus on best practices was not typical of most physicians in practice This could be explained by the fact that actual cases often have other complications that may not be easily determined from the charts but which would change the actual case results Secondly, the physicians in the group represented the more highly respected *and motivated physicians at each* hospital

The results of the Casemaps and the variances are described in the following pages

Discussion of Casemaps Developed by the teams

The various teams chose the following diagnoses to casemap

Pneumonia, simple
Pneumonia, complicated
Cholecystectomy, laparascopic
Stroke
COPD

There was a wide variation in the casemaps developed, not only in the length of stay, but in the medications administered, the referrals to rehabilitation in the case of stroke and the diagnostics used The casemaps are attached in Appendix C They are identified by hospital and by diagnosis from a large sheet reduced to 8x11 size For example, the length of stay by hospital varied in the case of stroke from 10 days to 15+

The use of CT scans varied from pre-admission to 3 days post admission Two hospitals did not have CT and have to transfer the patients to a distant hospital for the scans and return

There are no post hospital services available and it is difficult for functional independence of patients without longer hospital stays

Since the participants did not have financial data available it was not possible to do a costing exercise at all locations except DOTE, where the small group assigned to simple pneumonia was able to approximate the cost of the admission (115,443 HUF) with the payment made by the OEP (115,000) for that quarter, to the hospital for each case of that particular diagnosis

The groups were eager and tolerated the exercise with enthusiasm There was much lively discussion and a "hands on" emphasis on quality The discussions continued through meal times The involvement of the medical directors and medical education coordinators at each of the hospitals was very much appreciated by the group A certificate was given to each participant for the completion of the seminar (See Appendix E)

The groups expressed very much interest in sharing the casemaps with each other This has been done at the completion of the project Each host hospital received a copy of the casemaps done by each group for distribution to the participants

While it would be a very interesting exercise to further analyze the casemaps and compare the different care at locations from the east to the west, from teaching to community hospitals, the focus of the project was on teaching the techniques used in establishing a program in the hospital and for the participants learning the techniques used to successfully use casemapping for quality and cost purposes

The 18 participating hospitals could use the casemaps developed as templates to start to develop their own casemaps with their own hospitals' staff A sampling of discharged cases from each diagnosis would have to be conducted at each facility to develop baselines, as was

done in the 1995 project, to extract the customary patterns of actual care that was delivered and not the construct of a group representing several hospitals, which may actually be more ideal than is experienced in actual practice The cost structures at each hospital would also have to be analyzed to accurately reflect the costs that are identified in the diagnosis

Feedback and Participation Interest

A pre-seminar questionnaire and a post seminar questionnaire were developed and given to the participants A 66 % return rate was achieved

The pre questionnaire results reflected that the participants felt that physicians authority would not be threatened by casemaps, or that decreasing the days of treatment would not bring about a decrease in pay, or that the leadership felt that decreasing the days of treatment will bring a recession of budget or a decrease in the number of beds

80% felt that physicians must be convinced to change their behavior for a case map system to be effective

75% did not feel that patients are more satisfied with their care when they stay longer than expected

93% of the respondents meet regularly in the hospital to discuss issues about patient care

48% of the hospitals did not use casemaps or clinical paths of any sort, 50% did and used them for quality efforts only, not as a basis for financial analysis of the costs of care

Appendix D gives the completed summarized results of the questionnaires

Summarizing the post seminar questionnaire

85% of the respondents, interest in using casemaps was positive

74% of the respondents stated they would be interested in a certification program in casemapping and case management

They found the workshop and comparisons parts of the sessions the most interesting (88 6%)

The least interesting part 66% said they did not find any parts the least interesting, 16% considered the opening presentations the least interesting

The types of information they would want to see in future programs

1 Financing, (24%)
2 Comparison to other hospitals, (15%)
3 All information again, (15%)
4 Possibilities of use in Hungary, (15%)
5 Extended to outpatient care (9%)

91 4% agreed that the use of interdisciplinary case maps improves the outcomes of care

80% rated the quality of the handouts "good" or "outstanding "

83% rated the usefulness of the information "good" or "outstanding"

78% rated the presentations "good" or "outstanding"

77% rated the length of the sessions "good" or "outstanding"

The questions that related to the reasons why casemapping does not work were inconclusive except for the response, "no funding/no staff" where a 75% "usually" answer was given The actual responses are included in the Appendix

During the conduct of the program and afterward the group felt it would be helpful to make certain recommendations for the future based on the interest in the activity and the responses from the questionnaires The following recommendations are made to strengthen the interest and assist in actuating the improvement in the quality and cost of care for the people of Hungary

Introductory and process presentations were translated into Hungarian, are in Appendix F Also appended in F are the newspaper clipping and press release about the project

A guide for developing a casemapping program for hospitals in Hungary is enclosed in Appendix G

Recommendations

1 That a framework and financial incentives be advocated in the OEP (National Health Treasury) to encourage the use of casemaps by the individual hospitals and rewards provided to those hospitals who have successfully improved the outcomes and decreased the cost of care as demonstrated by the casemaps at predetermined intervals

2 That a visible central point for the exchange of information on casemaps be established in the Ministry of Health and that a list of hospital based health professionals trained in using and teaching casemapping be available to the Ministry for teaching and training activities at other hospitals

3 That a newsletter be published on a periodic basis to highlight best practices and outstanding outcomes achieved by individual hospitals and to serve as an interest point in the communicating of information about the quality and cost of care and the improvements made in it

4 That a certification program for health professionals be developed to establish the use of casemaps as a quality and cost analysis tool

5 That additional programs throughout the country be conducted by those hospitals that have participated in this project and that grant and private foundation funds be sought and used for the programs

6 That a follow up program be funded to monitor and provide consulting assistance to those 18 participating hospitals, to institutionalize and further the use of these techniques at those institutions, to assess the status of ongoing efforts to see if the appropriate resources and efforts are being used to benefit from the work expended and to assess whether the approach used is effective in getting the work started in each hospital

7 That additional ***Internet*** resources be developed and distributed to the participating hospitals as comparative resources for their own quality and cost improvement

8 That there are tremendous potential improvements in both the quality and cost of care through the introduction of casemapping is clear from our observations at the five sites The potential is probably greatest at Debrecen because the staff, physicians in particular, showed a keen interest in developing a hospital wide program They had already begun using casemapping on a limited test basis Dr Degrell and Dr Godeny were anxious for any technical and financial support that could be provided either directly to them or indirectly from the Ministry

Our meeting with the Dr Tivadar Miko, the Director General of the National Health Treasury, clearly demonstrated their willingness to work with consultants from the U S in this area However, their major concern is the ability to enforce the appropriate use of DRG coding so that hospitals would be reimbursed based on rates which properly correspond to the care that was provided There is no doubt that the implementation of the DRG system was done in haste and without the proper safeguards or adequate funding to insure the appropriate safeguards i e DRG rate setting data base audits and concurrent utilization and coding review mechanisms such as the Professional Review Organizations (PRO) in the U S A

A centralized effort to educate, train and support, both financially and legally, the use of casemapping should be the next objective

Casemapping Project Itinerary
For George J. Pogan, FACHE and Geoffrey D Liss, MBA

Nov 7	Leave Cleveland and Newark
Nov 8	Arrive in Budapest (AM)
Nov 9	Last minute preparations
	Courtesy visit to Ministry
	Travel to Csorna
Nov 10-11	Csorna, Margit Korhaz
Nov 12-13	Vas Megyei Markusovszky Korhaz
Nov 14	Return to Budapest
Nov 16-17	Orszagos Rehabilitacios Intezet
Nov 18	Travel to Debrecen
Nov 19-20	Debreceni Orvostudomanyi Egyetem
Nov 22	Travel to Karcag
Nov 23-24	Karcag, Katai Gabor Korház
Nov 24	Return to Budapest
Nov 25-Dec 2	Post Seminar Activities
Dec 3	Return to Cleveland

Faculty

George J Pogan, FACHE,
is President of George J Pogan & Associates, an international consulting firm specializing in medical rehabilitation, ambulatory care, strategic analysis, quality improvement and health planning for governments, hospitals, clinics, and other health and managed care organizations

Geoffrey D Liss, M B A ,
is a health care consultant with Besler & Co in Brunswick, NJ, and specializes in financial management and cost management for hospitals

For further info contact

Lukacs Judit
Project Coordinator
in Budapest
356-8246

Program Dates

November 10-11
Margit Hospital, Csorna

November 12-13
Vas Megyei Markuszovsky Hospital, Szombathely

November 16
National Institute for Medical Rehabilitation, Budapest

November 19-20
Debrecen Medical University, Debrecen

November 23-24
Katai Gabor Hospital, Karcag

Casemapping Education Project for Hungarian Hospitals

Sponsored by

- Hungarian American Coalition
  & USAID
  Project #180-0038 85
- and Host Hospitals Margit Hospital, Csorna
- Vas Megyei Markuszovsky Hospital Szombathely
- National Institute for Medical Rehabilitation Budapest
- Debrecen Medical University
- Katai Gabor Hospital, Karcag

CASEMAPPING SEMINAR PROGRAM

Day 1

9 00	Welcome	Host Hospital Director
9 15	Introductory Remarks	
9 30	The Seminar Process and Outcomes Expected	George J Pogan, FACHE
9 45	The History of the Casemapping Project and the Value to Hungarian Hospitals	Geoff Liss
10 15	Principles of Financial Management and its use in Casemapping	Geoff Liss
10 30	Break	
10 45	The Casemapping Program	George J Pogan, FACHE
	The Essential Elements and Examples	Geoff Liss
12 00	Lunch	
1 00	Presentations and Examples by Team Participants	
4 00	Break up into small groups and start a Casemap	
5 00	Adjourn to Dinner	
6 00	Dinner for Conference Participants	
7 00	Reconvene and continue Casemap Development	
8 30	Adjourn for the day	

Day 2

8 00	Scheduled Announcement and Team Breakout Session, Continued
10 30	Coffee Break
10 45	Breakout session continued
12 00	Lunch
1 00	Break out session continued
2 00	Presentation by each group and Comparison of Casemaps
	Discussion of Variations
4 30	Completion of Evaluation Questionnaires and wrap up

Learning Objectives

- The participants will learn how to construct a casemap
- Learn how to use a casemap to improve outcomes
- Learn how to examine costs of an outcome
- Learn how to improve quality and reduce costs
- Learn what kinds of training programs work

The Discussion Groups will explore

- How to identify key indicators for casemaps
- Problems in using casemaps and sustaining the initiative
- The value of the process
- Gaining adherence to casemaps
- The hospital climate to use casemaps effectively

Appendix B

Participating Hospitals

1 Margit Korhaz, Csorna

2 Vasmegyei Markusovszky Korhaz, Szombathely

3 Celldomolk Kórhaz, Celldomolk

4 Hegyfalu Pulmonary Institute, Hegyfalu

5 Szentgotthard Rehabilitation Hospital, Szentgotthard

6 Budai MAV Hospital, Budapest

7 National Institute for Medical Rehabilitation, Budapest

8 National Sports Institute, Budapest

9 National Koranyi TB and Pulmonary Institute, Budapest

10 HIETE, Post Graduate Medical University Clinic, Budapest

11 National Rehabilitation and Physiotherapy Institute (ORFI), Budapest

12 Debrecen Medical University (DOTE), Debrecen

13 Kenezy Gyula Korhaz, Debrecen

14 Hetenyi Geza Korhaz, Szolnok

15 Katai Gabor Korhaz, Karcag

16 Vasmegye Blood Blank, Szombathely

17 National Oncological Institute, Budapest

18 Interior Ministry Hospital, Budapest

Participants - Budapest

Dr Tallosy Imre	Budai MAV Korhaz
Nyilasi Palne	Budai MÁV Korhaz
Simon Laszlo	Budai MAV Korhaz
Dr Szell Andras	Budai MAV Korhaz
Dr Huszar Tamas	Budai MAV Korhaz
Dr Tarnay Katalin	Orszagos Onkologiai Intezet
Dr Banoczy Anna	Orszagos Sportegeszsegugyi Intezet
Kovacs Laszlone	Orszagos Sportegeszsegugyi Intezet
Dr Martos Mihaly	Orszagos Sportegeszsegugyi Intezet
Nagy Gabor Zoltan	Orszagos Sportegészsegugyi Intézet
Prof Dr Boszormenyi Nagy Gyorgy	Orszagos Koranyi Tbc es Pulm Int
Dr Kovacs Gabor	Orszagos Koranyi Tbc es Pulm Int
Dr Pataki Geza	Orszagos Koranyi Tbc es Pulm Int
Dr Csiszer Eszter	Orszagos Koranyi Tbc es Pulm Int
Dr Jonas Jozsef	Orszagos Koranyi Tbc es Pulm Int
Dr Peczi Zsuzsanna	Orszagos Koranyi Tbc es Pulm Int
Merone Nagy Lenke	Orszagos Koranyi Tbc es Pulm Int
Gyurcsane Kondrat Ilona	Orszagos Koranyi Tbc es Pulm Int
Szep Zoltanne	Orszagos Koranyi Tbc es Pulm Int
Szabo Annamaria	Orszagos Koranyi Tbc es Pulm Int
Koncsagne Jablonszky Maria	Orszagos Koranyi Tbc es Pulm Int
Barsony Judit	Orszagos Koranyi Tbc es Pulm Int

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Lengyelne Egyed Julıa	Orszagos Koranyı Tbc es Pulm Int
Vacsı Agnes	Orszagos Koranyı Tbc es Pulm Int
Matyası Erıka	Orszagos Koranyı Tbc es Pulm Int
Dr Lengyel Eva	Orszagos Orvosı Rehabılıtacıos Int
Vıncze Beatrıx	Orszagos Orvosı Rehabılıtacıos Int
Dr Elo Gyorgy	Orszagos Orvosı Rehabılıtacıos Int
Dr Boros Erzsebet	Orszagos Orvosı Rehabılıtacıos Int
Szıngerne Selymesı Ibolya	Orszagos Orvosı Rehabılıtácıos Int
Keménczy Janosné	Orszagos Orvosı Rehabılıtácıos Int
Dr Kallayne Óry Csılla	Orszagos Orvosı Rehabılıtácıos Int
Dr Rosa Gabor	Országos Orvosı Rehabılıtácıos Int
Jona Gyula	Orszagos Orvosı Rehabılıtácıós Int
Erdeı Edıt	HIETE
Dr Markus Ilona	Orszagos Rehabılıtacıos és Fız Int
Dr Megyerı Agnes	Orszagos Rehabılıtacıos es Fız Int

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Participants - Csorna, Margit Kórház

Dr Krizmanich Maria	Orvos-Igazgato
Podor Miklosne	Apolasi Igazgato
Horvath Rozsa	Minosegbiztositasi Igazgató
Buti Maria	Oszt Vez Fonover
Dr Frank Peter	Sebesz Szakorvos
Szabone Varallyai Katalin	Nosocomiális Nover
Nyiri Arpadne	Oszt Vez Fonover
Dr Polgar Csaba	Szul-nogyogyaszat
Fulop Ferencne	Fomadam
Penzvalto Istvanne	Nover, Pulmonológia
Dr Winiczai Zoltan	Oszt Vez Foorvos, Neurologia
Csehi Gezane	Oszt Vez Fonover, Neurologia
Kiss Zsuzsa	Nover, Neurologia
Dr Huber Eva	Foorvos, Gegeszet
Kiss Laszlone Nagy Marta	Asszisztens
Dr Beres Vera	Fóorvos, Bor-nemibeteg szakrendelo
Dr Bocskei Gyongyi	Labor Vez Fóorvos
Barkovics Jozsefne	Labor Szakasszisztens
Dr Mayer Rezső	Rtg Vez Foorvos
Palla Tiborne	Rtg Szakasszisztens
Szaradics Robertne	Rtg Szakasszisztens
Dr Tanay Denes	Anaesth Vez Foorvos

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Meszaros Edit	Anaesth Szakasszisztens
Csapo Ernone	Oszt Vez Fonover
Letenyei Oszkárne	Vez Asszisztens
Takacsne Konig Agnes	Asszisztens
Ifju Ferencne	Asszisztens
Nemeth Gizella	Asszisztens
Dr Nemeth Vilma	Tudogondozo Foorvos
Kovacs Marianna	Vez Asszisztens
Nemeth Istvanne	Mb Gazdasagi Igazgato
Kiss Gyulane	Penzugyi Oszt Vez
Dr Hoffer Lajos	Oszt Vez Foorvos
Dr Nemeth Jozsef	Foorvos
Horvathne Kiss Katalin	Kodolo Csoport Vez
Kissne Gombas Aniko	Informatikus
Heredi Gabor	Informatikus

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Participants - Debrecen

Sonyak Jolan	DOTE Bórklinika
Dr Zekanyne Rimar Ilona	Kenezy Gyula Korhaz
Csepes Imie	Kenezy Gyula Korhaz
Dr Remenyik Eva	DOTE Borgyogyaszat
Dr Bakos Beata	DOTE Borgyogyaszat
Dr Szegedi Istvan	DOTE Gyermekklinika
Dr Mogyorosy Gabor	DOTE Gyermekklinika
Dr Fekete Istvan	DOTE Neurologia
Dr Soltesz Istvan	DOTE Ortopedia
Dr Szabo Adrienne	DOTE Sztomatologia
Di Nagy Andras	DOTE Traumatologia
Domjan Peterne	DOTE III Belklinika
Szegeny Janosne	DOTE Szivsebeszeti Klinika
Poor Sandorne	DOTE Szívsebeszeti Klinika
Dr Szentkiralyi Istvan	DOTE Szivsebeszeti Klinika
Kardosne Fugedi Terez	DOTE Nói Klinika
Zsamboki Judit	DOTE Noi Klinika
Dr Szabo Maria	DOTE Noi Klinika
Dr Godeny Sandor	DOTE Noi Klinika
Dr Orszagh Istvanne	DOTE I Sebeszeti Klinika
Mihaly Gabor	DOTE I Sebeszeti Klinika
Dr Juhasz Ferenc	DOTE I Sebeszeti Klinika

Dr Lukacs Geza	DOTE I Sebeszeti Klinika
Dr Gergely Lajos	DOTE III Belklinika
Ungvari Zsuzsa	DOTE I Belklinika
Feketene Csak Roza	DOTE I Belklinika
Horváth Józsefne	DOTE Sziv es Tudoklinika
Dr Medgyesi Ferenc	DOTE Sziv es Tudóklinika
Dr Szilasi Maria	DOTE Sziv és Tudoklinika
Szabados Laszlone	DOTE Neurologia
Nagy Katalin	DOTE Pszichiatriai Tanszek
Toth Imrene	DOTE KAMAK
Dr Kuszko Emilia	DOTE KAMAK
Dr Kunkli Ferencne	DOTE KAMAK
Gál Ferenc	DOTE Gyógyszertar
Hajdune Fodor Edit	DOTE Gyogyszertar
Nemes Zsofia	DOTE Pszichiatriai Tanszek
Kristof Andrea	DOTE Pszichiatriai Tanszek
Dr Kemeny-Beke Ádam	DOTE Szemklinika
Dr Facsko Andrea	DOTE Szemklinika
Dr Misz Maria	DOTE Minoség Biztositas

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Participants - Karcag

Toth Gizella	Szolnok, Hetenyi Geza Korhaz
Vincze Margit	Szolnok, Hetényi Géza Kórhaz
Viczene Urban Etelka	Szolnok, Hetenyi Geza Korhaz
Dr Beres Maria	Karcag Korhaz, Radiologia
Barna Sandorne	Karcag Korhaz, Intenziv-anaesthesilogia
Fazekasne Kiss Ilona	Karcag Korhaz, Intenziv
Nagy Erika	Karcag Korhaz, Anaesthesiologia
Kiss Ambrus Ilona	Karcag Korhaz, Higienia
Orban Andrea	Karcag Korhaz, Sebeszet
Borsi Eszter	Karcag Korhaz, Sebeszet
Dr Szentes Gabor	Karcag Kórhaz, Sebeszet
Dr Farkas Jeno	Karcag Korhaz, Sebeszet
Dr Adam Istvan	Karcag Korhaz, Szuleszet
Szentesi Istvanne	Karcag Korhaz, Szuleszet
Nagy Imrene	Karcag Korhaz, Szulészet
Dr Perge Judit	Karcag Korhaz, I Belgyogyászat
Hodos Balintne	Karcag Korház, I Belgyogyászat
Nagy Imrene	Karcag Korhaz, I Belgyogyaszat
Nemes Attila	Karcag Kórhaz, Gyogyszertár
Dr Oszlacs Judit	Karcag Korház, Vertranszf Allomas

Meszarosne Hakucsak Erıka	Karcag Korhaz, apolası ıgazgato
Kondı Laszlo	Karcag Korhaz, Informatıkaı osztaly
Csokaı Levente	Karcag Korhaz, Laboratorıum

Participants - Szombathely

Dr Horvath Boldizsar	Vas megyei korhaz
Wagner Ferencne	Vas megyei korhaz
Tarczi Janosne	Celldomolk Kh
Dr Barta Miklos	Vas megyei korhaz
Kardos Laszlo	Vas megyei korhaz
Dr Nagy Lajos	Vas megyei korhaz
Dr Balogh Jozsef	M Pulm Int , Hegyfalu
Dr Tamas Laszlo	Vas megyei korhaz
Ederne Szenczi Edit	Vas megyei korhaz, Verellato
Dr Balint Maria	Vas megyei korhaz
Dr Miletits Erzsebet	Vas megyei korhaz
Nagy Magdolna	Vas megyei korhaz
Dr Schneider Ferenc	Vas megyei korhaz
Dr Takacs Lajos	Vas megyei korhaz
Dr Miklos Egon	Vas megyei korhaz
Domotor Laszlone	Vas megyei korhaz
Dr Ferenczi Valeria	Szentgotthard Rehab Kh
Dr Locsei Zoltan	Vas megyei korhaz
Dr Palyi Iren	Vas megyei korhaz
Dr Csanaki Gyorgy	Vas megyei korhaz
Dr Kosa Tunde	Vas megyei korhaz
Gyuk Tamas	Vas megyei korhaz

Appendix C

Budapest - Artrosis Coxal LD

Felvetel elott	1 nap	2 nap	3 nap	4 nap	5 nap
LABORATORIUM	Mellkas RTG	MŰTÉT	Lab kontroll	Lab kontroll	Mobilizálás
verkep	Csipo RTG (2 irányu)	praemedikacio	Ápolás	Ápolás	Csipomozgatogep
vizelet	Fizikális vizsgalat	altatás	Gyogytornász	Gyogytornasz	Drain kivetel-tenyesztes
máj	EKG	vér	Ergoth	Ergoth	Gyogyszer-kotozes
kemia	Belgyogyászati vizsgálat	Tep es kontroll RTG	Kotozes	Kotozes	Élelem
vercsoport	Anasthesiologus	INTENZIV	Élelmezes	Élelmezes	Vizit
veralvadás	Dokumentálás	infuzio	Vizit	Vizit	Ápolas
GÓCKERESÉS		monitorizálás	Pszchologus	Pszchologus	
nogyogyászat		thrombozis profilaxis	Gyogyszer (Inf ,vér,PO)	Gyogyszer (Inf ver PO)	
gegészet		antibiotikum profilaxis			
fogaszat		gyogyszerek			
urológia		vizit			

Appendix C

Budapest - Artiosis Coxal LD

Felvetel elott	**6-7-8 nap**	**9 nap**	**1O nap**	**11-14 nap**	**15 nap**
LABORATORIUM	Egyeni aktiv gyogytorna	Varratszedés	Hidroterapia	Egyéni aktiv gyógytorna	Segedeszkozok ell
vérkép	Járogyakorlat	Egyeni aktiv gyogytorna	Egyéni aktiv gyogytorna	Járogyakorlat	Szocális nover
vizelet	Ápolas	Járógyakorlat	Jarogyakorlat	Ápolás	
máj	Élelem	Ápolas	Ápolas	Élelem	
kémia	Gyogyszerek	Élelem	Élelem	Gyogyszerek	
vércsoport		Gyógyszerek	Gyogyszerek		
veralvadás					
GÓCKERESÉS					
nógyógyászat					
gégeszet					
fogászat					
urologia					

Appendix C

Budapest - Artrosis Coxal LD

Felvetel elott	16-2O nap	21 nap	Elbocs Kriteriumok	Megjegyzes
LABORATORIUM	Egyeni aktiv gyogytorna	Emissio	Sebgyogyulás	OORI-ban torteno elhelyezes
verkep	Járógyakorlat	Zárojelentés	Onellátás	Kontrol 1 - 3 het mulva
vizelet	Ápolás		Segedeszkoz használat	Kontrol 2 - 12 het mulva
máj	Élelem		Orvosi és szociális rehabilitáció	Kontrol 3 - fél ev mulva
kémia	Gyogyszerek			Kontrol 4 - 1 ev mulva
vercsoport				
veralvadas				
GÓCKERESÉS				
nogyógyaszat				
gegeszet				
fogászat				
urologia				

Appendix C

Csorna - Pneumonia I

Apolasi nap	Felvetel elott	1 nap	2 nap	3 nap	4 nap
Vizsgalatok		Anamn			
MRTG			x		
EKG		x	x		
LAB					
verkep		x			
TS meres	x				
Na K		x	x		x
KN creat		x			x
Vercukor					x
Vizelet	x		x		
Chol			x		
trigl HDL Chol			x		
CK CK-MB		x	x	x	x
LDH HBDH		x	x	x	x
D count		x	7x		
Sebi			x		
Echo					
We			x		
RR		3x			
Apolas					
dokumentalas					
helyzetvallt Segitseggel					
Ins Adas					
vena biztositas					
Szuksegletek felmerese					
Gyogyszerek					
Fraxiparin		2xO 7 ml	x		
Betaloc		5O mg	x		
Colfarit		O,25	x		
Minipress R		2x4 mg	x		
Zocor		2O	x		
O2 Lotensin		2x1Omg	x		
Furosemid		1a	x	2x1	
CH		1O8gr	x		
Feherje		4Ogr	x		
Ins R2O HM3 E6EHM3		x	x	INS R 12Hm3 E6E HM3	
Covarex					
Artil				3x625mg	x
Olicard				4Omg	x
Dionin					
Kal R					
Gyogytorna					
Dieta					

Appendix C

Csorna - Pneumonia I

5 nap	6 nap	7 nap	8 nap	9 nap	1O nap	11 nap	12 nap	13 nap	14 nap	15 nap	16 nap
								ABPM elojegyzes	Orvos valltas		
			x							x	
				x							
				x							
x				x						x	
				x							
										x	
				x							
				x							
7x				7x						7x	
						x					
3x											
x	x	x	x	x	x	x	x	x			
x	x	x	x	x	x	x	x	x			
15 csepp											
1x				2x1							

Appendix C

Csorna - Pneumonia I

17 nap	18 nap	Elbocs Kriteriumok	Megjegyzes	
	Haza	St p INF Myoe	Kontroll	ABPM 1 honap
		Decomp Card Nyha IV-III		Pulm 1 honap
x		Diab Mell		Nephrol 1 honap
		(Insuff Ren)		Havonta RR kontroll
		M Hypert		Havonta Vercukor kontroll
		Hemiplegia L D		
		Pneumonia L D		Gyogyszer javaslat
				Colfarit O 25
				Betacol 2OK 5O
				2O Cor 2O mg
				Lotensin 2x1O
				Furosemid 2x1
				Minipress R 4mg E6mg
				KR 2x1
				Olicard R4O
				INS R 12E HM3 E6E HM3

Appendix C

Csorna - Cholesystectomy

Ápolási nap	Felvétel előtt	1 nap	2 nap	3 nap
	UH-MRTG	Felvétel	Műtét napja	Mobilizálás
	LAB	Adminisztráció	Balneo	Vegyes folyadék
	vércsoport	Korlap	PP-Pulzus	Este hashajtás
	rutin	RR-pulzus	Hőmérséklet	Folyamatos observatio
		Hőmérséklet	ÁK behelyezés	3 vizit
		testsúly	Ideelpolya	Dokumentálás
		felvilágosítás	Borotválás	ÁK ev. Balneo
		Műtéti beleegyezés	Beoltoztetés	
		Osztályra elhelyezés	Premedicatio	
		Ápolási doc	IV	
		Lázlap	Ágynemű csere	
		HázirendBalneo		
		Műtéti előkészítés	MŰTÉT	
		Hashajtás	OPUS-LC	
		Premedicatio	Anesth (1 orvos 1 asst)	
			Monitorizálás (EKG Pusoximeter Capnográf)	
			Altatás (IV Intubálás, Gépi léleg, Admin)	
			Bemosakodás(3 orvos 1 műtősnő, 1 műtős)	
			Desinfitiálás, Izolálás	
			LC torony használata	
			Klippek	
			Drain	
			CO2	
			Varró anzag	
			Kötszer	
			ADI	
			Gyógyszerelés	
			Osztályra helyezés	
			Beteg átvétel-RR,Pulzus-O2 Sat Légzés	
			Dokumentáció-nővér, orvos	
			Folyamatos IV,este	
			Fájdalomcsillapító	
			Observatio, betétlap vezetés	
			Per os folyadék, 6 órával a műtét után	

Appendix C

Csorna - Cholesystectomy

4 nap	Elbocs Kriteriumok	Megjegyzes
Obszervatio		Kontroll 2 nap mulva
3 vizit		
Mobilizálás		
Dieta		
Tanácsadás		
Életmod		
Sebellenorzes, kotes, drain ex, kanul ex		
Dokumentáció		
Emissio		
Zárójelentes		

Appendix C

Csorna - Pneumonia II

Ápolási nap	Felvétel elott	1 nap	2 nap	3 nap	4 nap	5 nap	6 nap	7 nap	8 nap	9 nap	1O nap	Megjegyzés
Vizsgalatok			x		x					x		A beteget hetfön a sebeszetrol hoztak at
MRTG	x	x										
EKG		x										
LAB												
verkep		x										
Prot Inr		x										
Na, K, Cl		x	x									
KN, creat		x	x									
Vercukor		x	x									
Vizelet, GGT		x										
Amilase		x										
Navi has		x	x									
Hasi UH		x										
Se amil			x	x								
WE			x	x								
Gyógyszerek												
Augmentin		3x625mg	x	x	x	x	x	x	x	x	x	
O2		x	x	x	x	x	x	x	x	x	x	
Rulid						2x1	x	x	x	x	x	
Dieta		K-V	x	x	x	x	x	x	x	x	x	

Appendix C

Csorna - Stroke

Ápolási nap	Felvetel elott	1 nap	2 nap	3 nap	4 nap	5 nap	6 nap	7 nap	8 nap
Vizsgalatok					Korai rehab				
CT	x				Szovodmenyek kivedesere-				
LAB		x			preumonia	x			
verkep		x			melyvenas tromb	x			
Ionok		x				x			
Karbamiol		x				x			
Protrombin		x				x			
Vercukor		x				x			
Vizelet			x			x			
EKG monitoring		x	x	x		x			
Ápolas									
dokumentalas		x							
subintenziv reszlegre felv		x							
parameterek ellenorzese					x				
vena biztositas					x				
Szukseglete felmerese					x				
Gyogyszerek									
Ca-musc		x	x	x	x	x	x	x	x
Mounisol IV		x	x	x	x	x	x	x	x
Ityptapon		x	x	x	x	x	x	x	x
Konakion		x	x	x	x	x	x	x	x
Covarex		x	x	x	x	x	x	x	x
Gyógytorna									x
Dieta		pepes es sok folyadek							

Appendix C

Csorna - Stroke

9 nap	1O nap	Elbocs Kritériumok	Megjegyzes
	Zarojelentes		Kontroll 1O nap mulva
	Ápolási lap		
x	x		
x	x		
x	x		
x	x		
x	x		
x	x		

Appendix C

Debrecen - Stroke

Ápolási nap	Felvetel elott	1 nap	2 nap	3 nap	4 nap	5 nap	6 nap	7 nap	8 nap	9 nap	1O nap
Vizsgalatok	semmi	H Doppler		x					Card	x	Labor
		CT	MRTG								CO
		EKG	Labor								Na K
		Verkep									gluc
		Vizelet									Hasi UH(neg)
		We									
		RR									
Terapia								PH valtozas			
		antibiot	x	x	x	x	x	ex csokk	Amilosid	x	x
		Panadol Astrix	x	x	x	x	x	x	x	x	x
		Claforan	x	x	x	x	x	ex csokk	Tisasen	x	x
		Mannisol	x	x	x	x	x	ex csokk	Seropram	x	x
		Furosemid	x	x	x	x	x	ex csokk	20 mg	x	
		Inf Andaxin	x	x	x	x	x	Inf csokk	Andaxin	x	x
		Kal Gyogytorna		x				x		csokk dozisban	
			NN	x	x	x	x	Na Hep	x	x	
Hazabocs terv		Sze	Állitogep	x							
		Laxat	x	x	x	x	x	x	x		
Normal Dieta											

Appendix C

Debrecen - Stroke

17 nap	Elbocs Kriteriumok	Megjegyzes
Rehab Int	Incont Kezeles	Th jav Astrix Amilosid
Laztalan	Decub preventio	Seropram Tisasen Andax
nem progr		
Stabil neur		
belgyogy psych		
szempontbol		
Incontinens maradt		
Rehab Int -be bocsathato		

Appendix C

Karcag - Stroke

Vizsgalat	1 nap	2 nap	3 nap	4 nap	5	6	7	8 nap	9 nap	10	11	12	13 nap	14 nap	15 nap
Autoanamn	nem nyerheto														
Heteroanamn	x														
Fizikalis vizsgalat, vizit	x														
EKG	x							x					x		
MRTG Felv. AP/PA	x	x													
Labor	Surgos Na, K, KN, E	SGOT,SGPT,LDH						Urina	x						
	Fvs,Hb,Htk,Thromb,	Alkf,GGT,Verc,O chol						a, p, s, bi	ubg						
	Verc	Trigl,o feh,hugysav,crat,						ul	PH, fs						
		Na, K, KN													
CONSILIUM	Neurologia														
Therápia															
Inf Ringer 500 ml	x	x	x	x				INF csokk							
Inf Isodex 100 ml		x	x	x											
Nootropil 9g	x	x	x	x				Inf-ban							
Inf ban															
Huma-asa D 1 tbl	x	x	x	x				x	x	x	x	x	x	x	x
Lucetam R 800 mg	x							x	x	x	x	x	x	x	x
D 800 mg	x								x	x	x	x	x	x	x
Augmentin 3*625 mg	x	csokk										Demalgon			
E Andaxin	x										x	csokk			
E Stilnox	x										x	x	x	x	x

Appendix C

Szombathely - Pneumonia I

Apolasi nap	Felvetel elott	1 nap	2 nap	3 nap	4 nap	5-6-7 nap	8 nap	9 nap	10 nap	11 nap	12 nap
Gyogyszerek		Furosemid es KR	x	x	x	x	x	x	x	x	x
		Coverex	x	x	x	x	x	x	x	x	x
		INJ CLE XAN	x	x	x	x	x	x	x	x	x
			Digoxin	x	x	x	x	x	x	x	x
				Solumedrol	x	x	x	x	x	x	x
					Diaphyllin	x	x	x	x	x	x
							Euphylong	x	x	x	x
									Mandokef	x	x
VIZSGALATOK											
Pulmonologiai											x
EKG										x	x
Hasi Ultra Sound											x
Punctio											x
Cytologia											x
Bronchoscopia											x
Mellkas CT											x
Kis rutin											

Appendix C

Szombathely - Pneumonia I

13 nap	14 nap	15 nap	16 nap	17 nap	18 nap	19 nap	2O nap	Elbocs Kıterıumok	Megjegyzes
x									
x									
x						Prothrombın			
x	x	x				Cıprobay			
x	Dıgımerk	x			Dıklophenak	x			
x	Fraxıparın	x	x	x	x	x			
x			Szyncumar	Paxırasol	x	x			
x				x	x	x			
		x							
	x								
	x								
		x							
				x					
				x					

Appendix C

Szombathely - Stroke

Ápolási nap		1 nap	2 nap	3 nap	4 nap	5 nap	6 nap	7 nap	8 nap
Vizsgalatok	Fizikalis	x							
	Anamnaesis	x							
	Lab	x	VC rutin, Lipid, Maj funkciu			VC profil	x	x	x
	EKG	x			x				
	RR		x			x	x	x	x
	Duplex Scan								
	Bel Crusicium	x		x					
	Echo			x					
	CT			x					
Gyogyszerek									
	Doxylec	1 db este	x	x	x	x	x	x	x
	Trental IV	9x	x	x	x	x	x	x	x
	Fraxiparin	0,3x1	x	x	x	x	x	x	x
	Cerebryl	1-1-0	x	x	5-0-10mg	x	x	x	x
	Ednyt	2x5mg	x	x	x	x	x	x	x
	Enap	2x5mg	x	x	x	x	x	x	x
	Insulin		x	x	x	x	x	x	x
	R 30E Humulin M3		x	x	x	x	x	x	x
	E20 Humulin N2		x	x	x	x	x	x	x
	Madopar	3x1,5	x	x	x	x	x	x	x
	Proyac					x	x	x	x
	Corinfar								2x1
Gyogytorna			x	x	x	x	x	x	x

Appendix C

Szombathely - Stroke

9 nap	1O nap	Elbocs Kritériumok	Megjegyzes
Emission terv		Hozzatartozo	Korabban Encephalom-al kezelt beteg
		Onellato	
		Inzulin beadasara kepes	
x	x		
x	x		
x	x		
x	x		
x	x		
x	x		
x	x		
x	x		
x	x		
x	x		
x	x		
x	x		
x	x		
x	x		

Appendix C

Szombathely - Cholelithiasis and Hyperthonia

Ápolási nap	**Felvétel előtt**	**1 nap**	**2 nap**
Vizsgalatok			MŰTÉT
LAB	x		borotvalas
hemost	x		beontes
verkep	x		praemedicatio (dornicum)
vercukor	x		4 orvos
GOT	x		1 anest
GPT	x		1 muto asst
SEBI	x		1 muto seged
CN	x		eredmenykimutatasi lap
urinteszt	x		agynemu csere
vercsoport	x		2pm WC
Ultra Sound	x		
Bel Vizsgalat	x		
Seb Vizsgalat	x		
EKG	x		
Fizikai vizsgalat		x	
Vernzomas		x	
Suly meres		x	
Aneszteziologiai vizsgalat		x	
Ápolási anamnezis			
Ertekkezelesi leiras		x	
Ki hozta be		x	
Adatfelvetel		x	
Diéta			
csak folyadek		x	x
normal			
Gyógyszerek			
Renitec	2x1	x	
Stugeron	3x1	x	
Hypotiozit	1x1	x	
Mydeton	3x1	x	
Fraxiparin			x
IV			x
Dipi dolor			x
Cordafex			x
Gyógytorna			
Mobilizacio			

Appendix C

Szombathely - Cholelithiasis and Hyperthonia

3 nap	4 nap	5 nap	6 nap	7 nap	8-13 nap
Lab kontroll	Allando katater			Varatszedes	
verkep	Drain eltavolitas				
alvadasi statusz					
	Szajon at				
x	x			x	x
x	x			x	x

Appendix C

Szombathely - Cholelithiasis and Hyperthonia

14 nap	Elbocs Kritériumok	Megjegyzés
Rehab Intezetbe torteno atutalas		
Apolasi es tavozasi lap elkeszitese		
x		
x		

CASEMAPPING PROGRAM
END OF PROGRAM QUESTIONNAIRE

The following questions are designed to determine what changes are needed to improve the content of this program Your feedback is our best way to evaluate the program The "outcome" of this survey will determine what changes we need to make to our map for educating and inspiring healthcare professionals to strive to be the best they can be

1 Now that you have attended this two-day seminar, how have your interests in using casemapping changed?

2 Would you be interested in a certification program in Casemapping/Case Management?

3 What part of the program did you find the most interesting?

4 What part of the program did you find least interesting? Please answer completely and honestly!

5 What kinds of information would you want to see in a future program?

6 Do you think that the use of multidisciplinary casemaps can improve outcomes? Resource Consumption?

7 Please answer the following by circling a number

		Poor			Fair		Good			Excellent
A	Quality of Handouts	1	2	3	4	5	6	7	8	9	10
B	Useful Information	1	2	3	4	5	6	7	8	9	10
C	Organization/Presentation	1	2	3	4	5	6	7	8	9	10
D	Length of session	1	2	3	4	5	6	7	8	9	10

8 The following are reasons that were commonly given as to why case management/casemapping techniques are not used or not successful in Hungarian Hospitals

		No	Some of the time	Usually
A	Physicians' autonomy is threatened	1	2	3
B	Lack of support from administration	1	2	3
C	No funding/staff	1	2	3
D	No proof that it will improve outcomes	1	2	3
E	Lack of knowledge/confidence	1	2	3
F	Fear loss of money/jobs	1	2	3
G	Not a perceived need	1	2	3
H	Patient care decentralized	1	2	3

Thank You

Summary Pre-Program

1 Why are you interested in Casemapping/Clinical Pathways?

All hospitals

	Phy	Nurse	Tech	Other
Does not know	7	-	1	2
Efficiency	-	-	1	-
Learning	3	1	-	-
Quality	23	28	7	6
Cost	7	7	3	6
Total	**30**	**36**	**12**	**14**
Total answer	92			

2 Would you be interested in a certification program in Casemapping/Case Management?

All hospitals

	Phy	Nurse	Tech	Other
Yes	19	37	-	8
No	5	1	-	3
Does not know	3	-	1	-
Total	**27**	**38**	**1**	**11**
Total answer	77			

4 Describe Casemaps and Critical Pathways that have been used in your hospital'

All hospitals

	Phy	Nurse	Tech	Other
None	6	6	2	2
Don t know abou	6	10	7	1
Admin work	1	-	-	-
Quality	11	15	2	3
Other	7	-	-	4
Total	**30**	**31**	**11**	**10**
Total answer	82			

5 Were the Maps and Pathways successful?

3 hospitals

	Phy	Nurse	Tech	Other
Yes	6	11	-	6
No	2	-	-	2
Total	**8**	**11**	**-**	**8**
Total answer	27			

Summary Pre-Program

6 The following are reasons that are commonly given as reasons why case management/casemapping techniques are used or are not successful in Hungarian Hospitals

All hospitals		Physicians authonomy is threatened	Lack of support from administration	No funding/ staff	No proof of that it will improve outcomes	Lack of knowledge/ confidence	Fear loss of money/ job	Not a perceived need	Patient care decentralized	Staff lose interest in process	
		A	B	C	D	E	F	G	H	I	Total
Physician	1	12	16	6	10	6	15	14	14	12	105
	2	15	4	8	7	11	9	8	8	10	80
	3	-	5	17	8	10	4	4	4	7	59
Nurse	1	8	11	6	7	6	15	5	10	11	79
	2	10	10	4	9	11	5	10	8	15	82
	3	12	4	20	10	14	8	13	9	3	93
Technician	1	3	2	2	4	2	1	4	1	2	21
	2	9	5	-	6	7	6	3	8	5	49
	3	-	3	8	1	-	3	2	-	4	21
Other	1	2	7	2	2	2	7	3	2	2	29
	2	7	3	1	2	4	3	4	6	4	34
	3	1	1	9	4	5	1	3	2	5	31
		79	71	83	70	78	77	73	72	80	

7 Do physicians, nurses and other hospital staff meet in your hospital to discuss issues about patient care?

All hospitals

	Phy	Nurse	Tech	Other
Yes	31	35	10	12
No	2	2	3	-
Total	**33**	**37**	**13**	**12**
Total answer	95			

8 Answer the following true/false statements'

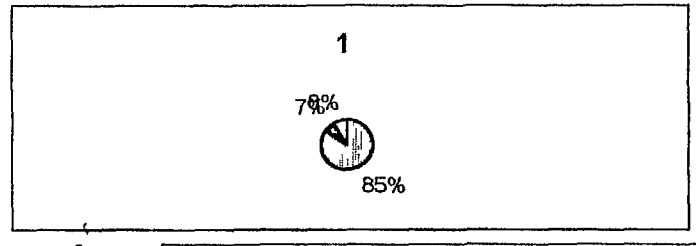
All hospitals	Accurate data will result in improvements in efficiency of care and better outcomes	Patients are more satisfied with their care when they stay longer than expected	Physicians are more result oriented and less process oriented	Physicians control patient care and must be convinced to change their behavior for care map system to be effective	Physicians authority would be threatened by using casemaps	Physicians fear that decreasing the days of treatment will bring with it a deacrease in pay	Leadership fears that deacreasing the days of treatment will bring a decrease in the number of beds
PHY	A	B	C	D	E	F	G
Yes	35	8	33	29	5	5	7
No	2	28	4	7	28	33	27
NURSE							
Yes	33	9	32	30	18	11	13
No	3	29	6	8	17	26	25
TECH							
Yes	12	7	10	11	5	4	3
No	-	3	3	1	7	9	10
OTHER							
Yes	15	-	13	10	5	3	5
No	-	15	1	5	10	11	8

Summary Post-Program

1 Now that you have attended this two day seminar, how have your interest using Casemapping changed?

All hospitals

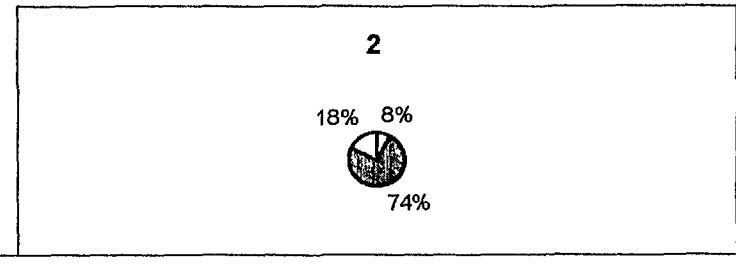
	# answer
Positive	90
Negative	7
Same	9
Total	**106**



2 Would you be interested in a certification program in Casemapping/Case Management?

All hospitals

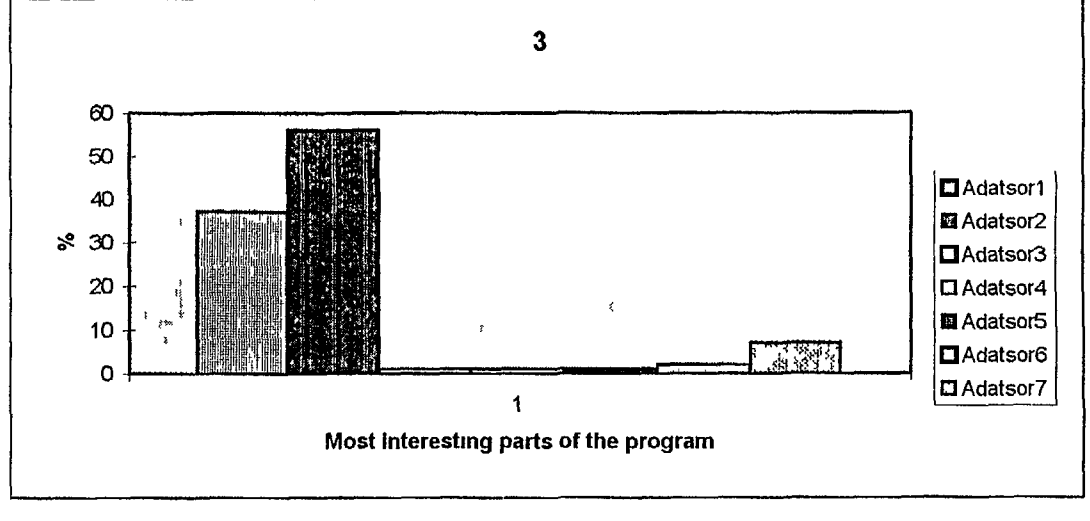
	# answers
None	9
Yes	84
No	20
Total	**113**



3 What part of the programm did you find the most interesting?

All hospitals

	# answers
1 Work-shop	37
2 Comparing	56
3 Informatics part	1
4 Explanation of the case manager	1
5 Karcag presentation	1
6 List of information	2
7 All	7
Total	**105**

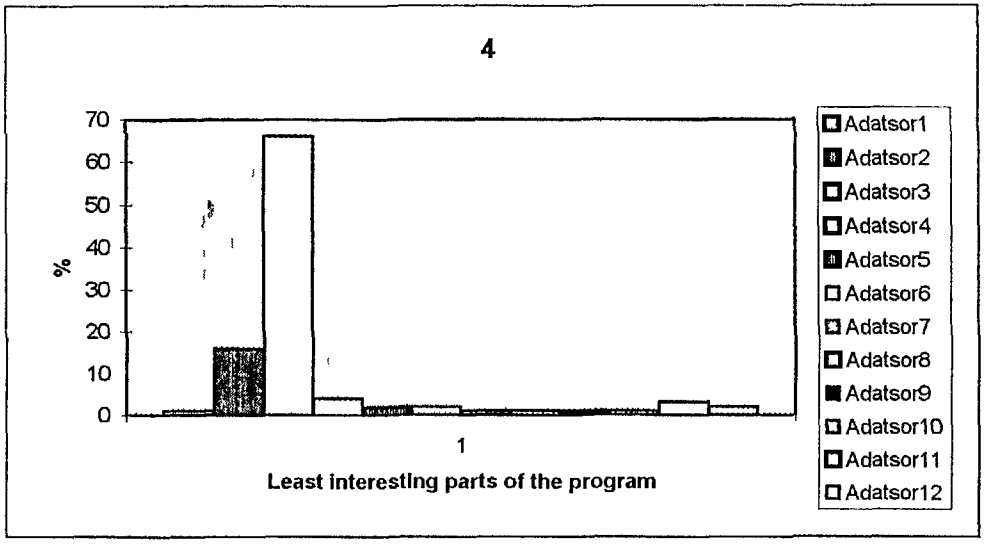


Summary Post-Program

4 What part of the program did you find least interesting?

All hospitals

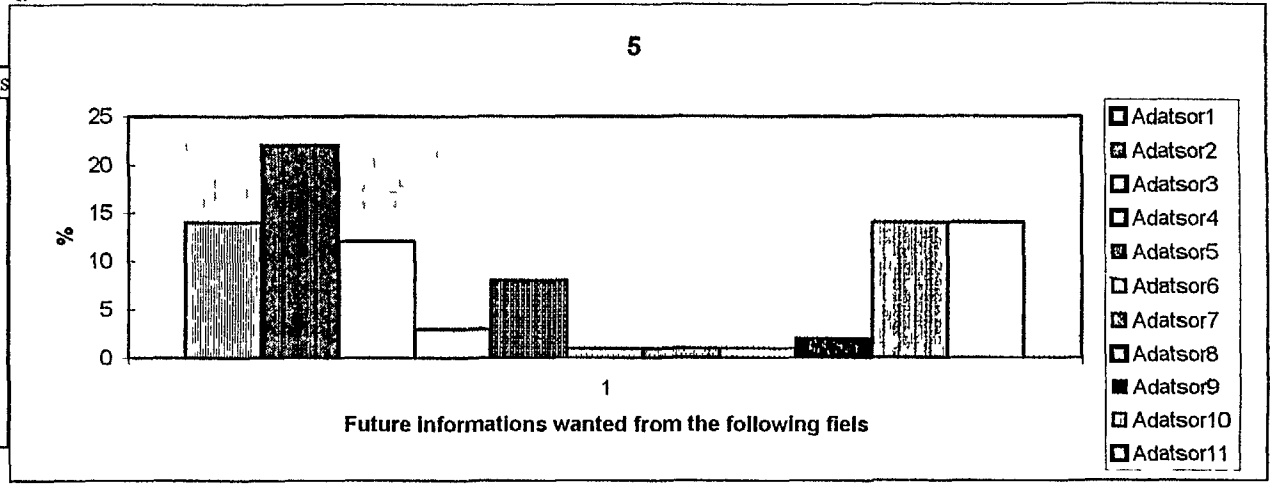
	# answers
1 Two days were too lmuch for the program	1
2 Opening presentation	16
3 No such	66
4 Couldn't hear most	4
5 Comparing	2
6 Work-shop	2
7 Graph show	1
8 Karcag presentation	1
9 Own casemap preparation	1
10 History of Casemapping	1
11 Informatics part	3
12 Old data was used	2
Total	**100**



5 What kind of information would you want to see in a future programm?

All hospitals

	# answers
1 None	14
2 Financing	22
3 Possibilities in Hu	12
4 How did it change from the biginning of the programm	3
5 Out-going patient care	8
6 How to get the staff interested	1
7 Possibilities in informatics	1
8 Home-care/rehabilitation	1
9 How to connect it with the home doctors office	2
10 Comparing to other Hospitals	14
11 All info	14
Total	**92**



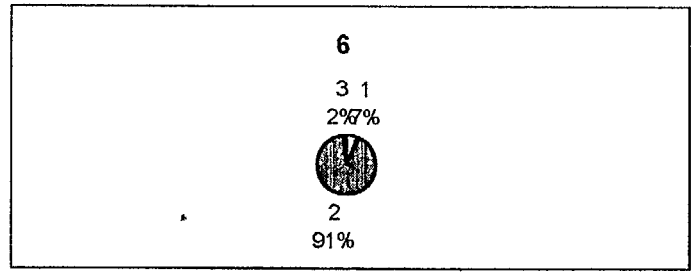
6 Do you think that use of multidisciplinary Casemaps can improve outcomes? Resource Consumption?

Summary Post-Program

6 Do you think that use of multidisciplinary Casemaps can improve outcomes? Resource Consumption?

All hospitals

	# answers
None	7
Yes	96
No	2
Total	**105**



7 Please answer the following by circling a number

		# answers
A / Quality of handouts	1	-
	2	-
	3	4
	4	16
	5	5
	6	16
	7	24
	8	20
	9	22
	10	10
Total answer		**117**

C / Organization/Presentation	1
	2
	3
	4
	5
	6
	7
	8
	9
	10
Total answer	

		# answers
B / Useful information	1	0
	2	0
	3	4
	4	9
	5	6
	6	17
	7	17
	8	21
	9	17
	10	19
Total answer		**110**

D / Length of sessions	1
	2
	3
	4
	5
	6
	7
	8
	9
	10
Total answer	

Summary Post-Program

8 The following are reasons that were commonly given as to why case management techniques are not used or not successful in Hungarian Hospitals

All hospitals

		# answers
A /Physicians authonomy is threatened	1-no	34
	2-sometimes	38
	3-usually	26
B /Lack of support from administration	1-no	34
	2-sometimes	40
	3-usually	19
C /No funding/staff	1-no	10
	2-sometimes	14
	3-usually	78
D /No proof that it will improve outcomes	1-no	41
	2-sometimes	30
	3-usually	24
E /Lack of knowledge/confidence	1-no	18
	2-sometimes	44
	3-usually	32
F /Fear loss of money/jobs	1-no	44
	2-sometimes	29
	3-usually	18
G /Not a perceived need	1-no	22
	2-sometimes	39
	3-usually	35
H /Patient care decentralized	1-no	25
	2-sometimes	31
	3-usually	39

1 Why are you interested in Casemapping/Clinical Pathways?

Csorna

	Phy	Nurse	Tech	Other
Efficiency	-	-	1	-
Learning	1	1	-	-
Quality	7	7	7	-
Cost	1	1	3	1
Total	9	9	11	1

Szombathely

	Phy	Nurse	Tech	Other
Does not know	6	-	1	1
Efficiency	-	-	-	-
Learning	2	-	-	-
Quality	4	3	-	-
Cost	1	-	-	1
Total	13	3	1	2

Budapest

	Phy	Nurse	Other
Does not know	1	-	1
Quality	9	5	2
Cost	4	3	3
Total	14	8	6

Debrecen

	Phy	Nurse	Other
Quality	1	1	4
Cost	1	1	1
Total	2	2	5

Karcag

	Phy	Nurse
Quality	2	12
Cost	-	2
Total	2	14

All hospitals

	Phy	Nurse	Tech	Other
Does not know	7	-	1	2
Efficiency	-	-	1	-
Learning	3	1	-	-
Quality	23	28	7	6
Cost	7	7	3	6
Total	**30**	**36**	**12**	**14**
Total answer	92			

2 Would you be interested in a certification program in Casemapping/Case Management?

Csorna

	Phy	Nurse	Tech	Other
Yes	1	12	-	-
No	-	-	-	-
Total	**1**	**12**	-	-

Szombathely

	Phy	Nurse	Tech	Other
Yes	7	3	-	2
No	2	-	-	-
Does not know	3	-	1	-
Total	12	3	1	2

Budapest

	Phy	Nurse	Tech	Other
Yes	9	6	-	3
No	2	1	-	2
Total	**11**	7	-	**5**

Debrecen

	Phy	Nurse	Tech	Other
Yes	1	4	-	3
No	1	-	-	1
Total	**2**	**4**	-	**4**

Karcag

	Phy	Nurse	Tech	Other
Yes	1	12	-	-
No	-	-	-	-
Total	**1**	**12**	-	-

All hospitals

	Phy	Nurse	Tech	Other
Yes	19	37	-	8
No	5	1	-	3
Does not know	3	-	1	-
Total	**27**	**38**	**1**	**11**
Total answer	77			

4 Describe Casemaps and Critical Pathways that have been used in your hospital'

Csorna

	Phy	Nurse	Tech	Other
None	1	1	2	1
Don t know about it	1	-	6	-
Administration work	1	-	-	-
Quality	4	5	2	-
Other	2	-	1	-
Total	9	6	11	1

Szombathely

	Phy	Nurse	Tech	Other
None	3	1	-	-
Don t know about it	5	1	1	1
Quality	3	2	-	-
Other	1	-	-	-
Total	12	4	1	1

Budapest

	Phy	Nurse	Tech	Other
None	1	3	-	1
Quality	3	4	-	2
Other	4	1	-	4
Total	**11**	**8**	-	7

Debrecen

	Phy	Nurse	Tech	Other
None	1	1	-	
Quality	1	2	-	1
Other	-	-	-	
Total	**2**	**3**	-	**1**

Karcag

	Phy	Nurse	Tech	Other
Don t know about it	-	9	-	-
Quality	-	2	-	-
Other	-	-	-	-
Total	-	**11**	-	-

All hospitals

	Phy	Nurse	Tech	Other
None	6	6	2	2
Don t know about it	6	10	7	1
Administration work	1	-	-	-
Quality	11	15	2	3
Other	7	-	-	4
Total	**30**	**31**	**11**	**10**
Total answer	82			

5 Were the Maps and Pathways successful?

Budapest

	Phy	Nurse	Tech	Other
Yes	5	5	-	6
Know	1	-	-	-
Total	**6**	**5**	-	**6**

Debrecen

	Phy	Nurse	Tech	Other
Yes	1	2	-	-
No	-	-	-	2
Total	**1**	**2**	-	**2**

Karcag

	Phy	Nurse	Tech	Other
Yes	-	4	-	-
No	1	-	-	-
Total	**1**	**4**	-	-

All 3 hospitals

	Phy	Nurse	Tech	Other
Yes	6	11	-	6
No	2	-	-	2
Total	**8**	**11**	-	**8**
Total answer	27			

Pre Program Questionnaire

6 The following are reasons that are commonly given as reasons why case management/casemapping techniques are used or are not successful in Hospitals

Csorna		Physicians authonomy is threatened	Lack of support from administration	No funding/staff	No proof of that it will improve outcomes	Lack of knowledge/ confidence	Fear loss of money/job	Not a perceived need	Patient care decentralized	Staff lose interest in process
		A	B	C	D	E	F	G	H	I
Physician	1-no	4	7	2	3	-	4	1	6	4
	2-sometimes	4	-	3	2	4	4	3	2	3
	3-usually	-	1	6	1	4	1	4	1	1
Nurse	1-no	1	3	2	3	1	2	2	1	1
	2-sometimes	4	-	-	-	1	1	3	3	5
	3-usually	-	-	1	1	3	-	1	-	-
Technician	1-no	3	2	2	4	2	1	4	1	2
	2-sometimes	9	5	-	6	7	6	3	8	5
	3-usually	-	3	8	1	-	3	2	-	4
Other	1-no	-	1	1	-	-	-	1	-	1
	2-sometimes	1	-	-	-	1	1	-	1	-
	3-usually	-	-	-	-	-	-	-	-	-

Pre Program Questionnaire

Szombathely		Physicians authonomy is threatened	Lack of support from administration	No funding/staff	No proof of that it will improve outcomes	Lack of knowledge/ confidence	Fear loss of money/job	Not a perceived need	Patient care decentralized	Staff lose interest in process
		A	B	C	D	E	F	G	H	I
Physician	1	2	3	2	1	1	3	4	2	1
	2	4	2	1	1	3	2	2	3	2
	3	-	1	4	4	2	1	-	-	3
Nurse	1	2	2	-	1	-	1	-	1	1
	2	1	-	2	1	3	1	1	1	3
	3	1	-	2	2	1	2	1	1	-
Other	1	-	1	-	-	-	-	1	-	-
	2	1	-	-	-	-	1	-	1	-
	3	-	-	1	1	1	-	-	-	1

Budapest		Physicians authonomy is threatened	Lack of support from administration	No funding/staff	No proof of that it will improve outcomes	Lack of knowledge/ confidence	Fear loss of money/job	Not a perceived need	Patient care decentralized	Staff lose interest in process
		A	B	C	D	E	F	G	H	I
Physician	1	5	5	2	6	5	8	8	6	7
	2	5	1	4	3	3	2	2	1	3
	3	-	3	4	1	2	-	-	3	3
Nurse	1	1	4	2	-	-	5	-	4	2
	2	3	2	1	3	3	1	3	1	2
	3	2	-	4	3	4	-	3	2	2
Other	1	2	3	1	-	1	4	-	2	1
	2	3	2	1	1	1	1	2	1	2
	3	-	1	4	3	3	1	3	2	3

Pre Program Questionnaire

Debrecen		Physicians authonomy is threatened	Lack of support from administratio n	No funding/staff	No proof of that it will improve outcomes	Lack of knowledge/ confidence	Fear loss of money/job	Not a perceived need	Patient care decentralized	Staff lose interest in process
		A	B	C	D	E	F	G	H	I
Physician	1	1	1	-	-	-	-	1	-	-
	2	1	1	-	1	-	1	1	2	2
	3	-	-	2	1	2	1	-	-	-
Nurse	1	2	-	-	1	2	1	-	-	3
	2	-	1	1	1	-	1	-	1	-
	3	1	1	3	-	1	1	3	1	1
Other	1	-	2	-	2	1	3	1	-	-
	2	2	1	-	1	2	-	2	3	2
	3	1	-	4	-	1	-	-	-	1

Karcag		Physicians authonomy is threatened	Lack of support from administratio n	No funding/staff	No proof of that it will improve outcomes	Lack of knowledge/ confidence	Fear loss of money/job	Not a perceived need	Patient care decentralized	Staff lose interest in process
		A	B	C	D	E	F	G	H	I
Physician	1	-	-	-	-	-	-	-	-	-
	2	1	-	-	-	1	-	-	-	-
	3	-	-	1	1	-	1	-	-	-
Nurse	1	2	2	2	2	3	6	3	4	4
	2	2	7	-	4	4	1	3	2	5
	3	8	3	10	4	5	5	5	5	-

Pre Program Questionnaire

All hospitals		Physicians authonomy is threatened	Lack of support from administratio n	No funding/staff	No proof of that it will improve outcomes	Lack of knowledge/ confidence	Fear loss of money/job	Not a perceived need	Patient care decentralized	Staff lose interest in process	Total
		A	B	C	D	E	F	G	H	I	
Physician	1-no	12	16	6	10	6	15	14	14	12	105
	2-sometimes	15	4	8	7	11	9	8	8	10	80
	3-usually	-	5	17	8	10	4	4	4	7	59
Nurse	1-no	8	11	6	7	6	15	5	10	11	79
	2-sometimes	10	10	4	9	11	5	10	8	15	82
	3-usually	12	4	20	10	14	8	13	9	3	93
Technician	1-no	3	2	2	4	2	1	4	1	2	21
	2-sometimes	9	5	-	6	7	6	3	8	5	49
	3-usually	-	3	8	1	-	3	2	-	4	21
Other	1-no	2	7	2	2	2	7	3	2	2	29
	2-sometimes	7	3	1	2	4	3	4	6	4	34
	3-usually	1	1	9	4	5	1	3	2	5	31
		79	71	83	70	78	77	73	72	80	

8 Answer the following true/false statements

Csorna

PHY	A accurate data will result in improvements in efficiency of care and better outcomes	B patients are more satisfied with their care when they stay longer than expected	C physicians are more result oriented and less process oriented	D physicians control patient care and must be convinced to change their behavior for care map system to be effective	E Physicians authority would be threatened by using casemaps	F Physicians fear that decreasing the days of treatment will bring with it a deacrease in pay	G Leadership fears that deacreasing the days of treatment will bring a decrease in the number of beds
Yes	10	4	9	8	3	2	2
No	-	5	1	2	7	8	8
NURSE	-	-	-	-	-	-	-
Yes	8	2	8	6	2	1	1
No	-	6	-	2	6	7	7
TECH	-	-	-	-	-	-	-
Yes	11	7	9	11	5	4	3
No	-	2	3	-	6	8	9
OTHER	-	-	-	-	-	-	-
Yes	1	-	1	-	-	-	-
No	-	1	-	1	1	1	1

Szombathely

PHY	A	B	C	D	E	F	G
Yes	11	3	10	7	1	1	2
No	-	7	1	2	6	10	8
NURSE	-	-	-	-	-	-	-
Yes	4	1	3	2	2	3	2
No	-	3	1	2	1	1	2
TECH	-	-	-	-	-	-	-
Yes	1	-	1	-	-	-	-
No	-	1	-	1	1	1	1
OTHER	-	-	-	-	-	-	-
Yes	2	-	-	1	-	-	-
No	-	2	1	1	2	2	2

Budapest

PHY	A	B	C	D	E	F	G
Yes	10	-	10	10	1	1	3
No	2	13	2	3	12	12	8
NURSE	-	-	-	-	-	-	-
Yes	5	-	6	7	4	2	1
No	1	7	1	-	2	4	6
OTHER	-	-	-	-	-	-	-
Yes	7	-	7	4	2	2	3
No	-	7	-	3	5	4	2

Pre Program Questionnaire

Debrecen

PHY	A	B	C	D	E	F	G
Yes	2	1	2	2	-	1	-
No	-	1	-	-	2	1	2
NURSE	-	-	-	-	-	-	-
Yes	4	2	4	3	1	1	2
No	-	2	-	1	3	3	2
OTHER	-	-	-	-	-	-	-
Yes	5		5	5	3	1	2
No	-	5	-	-	2	4	3

Karcag

PHY	A	B	C	D	E	F	G
Yes	2	-	2	2	-	-	-
No	-	2	-	-	1	2	1
NURSE	-	-	-	-	-	-	-
Yes	12	4	11	12	9	4	7
No	2	11	4	3	5	11	8

All hospitals

PHY	A accurate data will result in improvements in efficiency of care and better outcomes	B patients are more satisfied with their care when they stay longer than expected	C physicians are more result oriented and less process oriented	D physicians control patient care and must be convinced to change their behavior for care map system to be effective	E Physicians authority would be threatened by using casemaps	F Physicians fear that decreasing the days of treatment will bring with it a deacrease in pay	G Leadership fears that deacreasing the days of treatment will bring a decrease in the number of beds
Yes	35	8	33	29	5	5	7
No	2	28	4	7	28	33	27
NURSE	-	-	-	-	-	-	-
Yes	33	9	32	30	18	11	13
No	3	29	6	8	17	26	25
TECH	-	-	-	-	-	-	-
Yes	12	7	10	11	5	4	3
No	-	3	3	1	7	9	10
OTHER	-	-	-	-	-	-	-
Yes	15	-	13	10	5	3	5
No	-	15	1	5	10	11	8

1 Now that you have attended this two day seminar, how have your interest using casemapping changed?

Csorna

	PHY	NURSE	TECH	OTHER
Positive	-	-	-	26
Negative	-	-	-	2
Same	-	-	-	1
Total	-	-	-	**29**

Szombathely

	PHY	NURSE	TECH	OTHER
Positive	10	1	1	1
Negative	-	-	-	-
Same	-	1	-	-
Total	**10**	**2**	**1**	**1**

Budapest

	PHY	NURSE	TECH	OTHER
Positive	6	3	-	5
Negative	3	1	-	1
Same	2	-	-	-
Total	**11**	**4**	**-**	**6**

Debrecen

	PHY	NURSE	TECH	OTHER
Positive	-	-	-	25
Negative	-	-	-	-
Same	-	-	-	5
Total	-	-	-	**30**

Karcag

	PHY	NURSE	TECH	OTHER
Positive	-	-	-	13
Negative	-	-	-	-
Same	-	-	-	-
Total	-	-	-	**13**

All hospitals

	# answer
Positive	90
Negative	7
Same	9
Total	**106**

2 Would you be interested in a certification program in Casemapping/Case Management?

Csorna

	PHY	NURSE	TECH	OTHER
None	-	-	-	2
Yes	-	-	-	23
No	-	-	-	6
Total	-	-	-	**31**

Szombathely

	PHY	NURSE	TECH	OTHER
None	-	-	-	1
Yes	9	2	1	-
No	1	-	-	-
Total	**10**	**2**	**1**	**1**

Budapest

	PHY	NURSE	TECH	OTHER
None	2	1	-	3
Yes	5	1	-	4
No	4	3	-	-
Total	**11**	**5**	-	7

Debrecen

	PHY	NURSE	TECH	OTHER
None	-	-	-	-
Yes	-	-	-	26
No	-	-	-	6
Total	-	-	-	**32**

Karcag

	PHY	NURSE	TECH	OTHER
None	-	-	-	-
Yes	-	-	-	13
No	-	-	-	-
Total	-	-	-	**13**

All hospitals

	# answers
None	9
Yes	84
No	20
Total	**113**

3 What part of the program did you find the most interesting?

Csorna

	PHY	NURSE	TECH	OTHER
Work-shop	-	-		7
Comparing	-	-	-	19
All	-	-	-	4
Total	-	-	-	**30**

Szombathely

	PHY	NURSE	TECH	OTHER
Work-shop	2	2	1	1
Comparing	7	-	-	-
All	1	-	-	-
Total	10	2	1	1

Budapest

	PHY	NURSE	TECH	OTHER
Work-shop	3	1	-	3
Comparing	5	2	-	2
Informatics part	-	-	-	1
Explanation of the case manager	1	-	-	-
Karcag presentation	1	-	-	-
All	-	1	-	-
Total	**10**	**4**	**-**	**6**

Debrecen

	PHY	NURSE	TECH	OTHER
Work-shop	-	-	-	12
Comparing	-	-	-	14
List of information	-	-	-	1
All	-	-	-	1
Total	-	-	-	**28**

Karcag

	PHY	NURSE	TECH	OTHER
Work-shop	-	-	-	5
Comparing	-		-	7
List of information	-	-	-	1
All	-	-	-	-
Total	-	-	-	**13**

All hospitals

	# answers
Work-shop	37
Comparing	56
Informatics part	1
Explanation of the case manager	1
Karcag presentation	1
List of information	2
All	7
Total	**105**

4 What part of the program did you find least interesting?

Csorna

	PHY	NURSE	TECH	OTHER
None	-	-	-	12
Opening presentation	-	-	-	4
No such	-	-	-	14
Own casemap preparation	-	-	-	1
History of casemapping	-	-	-	1
Total	-	-	-	**32**

Szombathely

	PHY	NURSE	TECH	OTHER
None	2	-	-	-
Opening presentation	1	-	-	1
No such	4	3	1	-
Informatics part	2	-	-	-
Total	**9**	**3**	**1**	**1**

Budapest

	PHY	NURSE	TECH	OTHER
None	5	2	-	2
Opening presentation	3	1	-	1
Karcag presentation	1	-	-	-
No such	1	1	-	3
Informatics part	-	-	-	1
Total	**10**	**4**	**-**	**7**

Debrecen

	PHY	NURSE	TECH	OTHER
Two days were long for the program	-	-	-	1
Opening presentation	-	-	-	6
No such	-	-	-	6
Couldn't hear most	-		-	4
Comparing	-	-	-	2
Work-shop	-	-	-	2
Old data was used	-	-	-	2
Total	-	-	-	23

Karcag

	PHY	NURSE	TECH	OTHER
Opening presentation	-	-	-	-
No such	-	-	-	10
Graph show	-	-	-	1
Total	-	-	-	**11**

All hospitals

	# answers
Two days were too much for the program	1
Opening presentation	16
No such	66
Couldn't hear most	4
Comparing	2
Work-shop	2
Graph show	1
Karcag presentation	1
Own casemap preparation	1
History of casemapping	1
Informatics part	3
Old data was used	2
Total	**100**

5 What kind of information would you want to see in a future program?

Csorna

	PHY	NURSE	TECH	OTHER
None	-	-	-	4
Financing	-	-	-	6
Possibilities in Hungary	-	-	-	3
Out-going patient care	-	-	-	7
How to get the staff interested	-	-	-	1
Possibilities in informatics	-	-	-	1
Home-care/rehabilitation	-	-	-	1
How to connect it with the home doctors office	-	-	-	2
Comparing to other Hospitals	-	-	-	2
All info	-	-	-	4
Total	-	-	-	**31**

Szombathely

	PHY	NURSE	TECH	OTHER
None	1	-	-	1
Financing	3	2	-	-
Possibilities in Hungary	3	-	-	-
Out-going patient care	-	-	1	-
Comparing to other Hospitals	1	-	-	-
All info	2	1	-	-
Total	**10**	**3**	**1**	**1**

Budapest

	PHY	NURSE	TECH	OTHER
None	5	1	-	2
Financing	3	1	-	-
Possibilities in Hungary	-	1	-	-
Out-going patient care	-	-	-	-
Comparing to other Hospitals	1	-	-	1
All info	1	-	-	2
Total	**10**	**3**	**-**	**5**

6 Do you think that use of multidisciplinary case maps can improve outcomes? Resource Consumption?

Csorna

	PHY	NURSE	TECH	OTHER
None	-	-	-	2
Yes	-	-	-	29
No	-	-	-	-
Total	-	-	-	**31**

Szombathely

	PHY	NURSE	TECH	OTHER
None	1	-	1	-
Yes	8	3	1	-
No	-	-	-	-
Total	-	-	-	-

Budapest

	PHY	NURSE	TECH	OTHER
None	2	-	-	1
Yes	8	4	-	4
No	-	-	-	1
Total	**10**	**4**	**-**	**6**

Debrecen

	PHY	NURSE	TECH	OTHER
None	-	-	-	-
Yes	-	-	-	26
No	-	-	-	1
Total	-	-	-	**27**

Karcag

	PHY	NURSE	TECH	OTHER
None	-	-	-	-
Yes	-	-	-	13
No	-	-	-	-
Total	-	-	-	**13**

All hospitals

	# answers
None	7
Yes	96
No	2
Total	**105**

Post Program Questionnaire

8 The following are reasons that were commonly given as to why case management techniques are used or are not successful in Hungarian Hospitals

All hospitals

		Csorna	Szombathely	Budapest	Debrecen	Karcag	# answers
A /Physicians authonomy is threatened	1-no	8	6	5	12	3	**34**
	2-sometimes	17	5	8	7	1	**38**
	3-usually	3	3	4	8	8	**26**
B /Lack of support from administration	1-no	18	5	6	4	1	**34**
	2-sometimes	6	6	10	11	7	**40**
	3-usually	2	-	1	13	3	**19**
C /No funding/staff	1-no	4	2	2	1	1	**10**
	2-sometimes	8	3	3	-	-	**14**
	3-usually	17	9	13	28	11	**78**
D /No proof that it will improve outcome	1-no	14	6	8	8	5	**41**
	2-sometimes	8	2	5	10	5	**30**
	3-usually	5	4	4	9	2	**24**
E /Lack of knowledge/confidence	1-no	9	1	6	1	1	**18**
	2-sometimes	14	5	6	12	7	**44**
	3-usually	4	5	4	14	5	**32**
F /Fear loss of money/jobs	1-no	10	5	12	12	5	**44**
	2-sometimes	11	4	1	8	5	**29**
	3-usually	4	3	4	6	1	**18**
G /Not a perceived need	1-no	11	2	1	5	3	**22**
	2-sometimes	7	6	10	13	3	**39**
	3-usually	9	4	6	8	8	**35**
H /Patient care decentralited	1-no	4	5	8	4	4	**25**
	2-sometimes	10	5	2	11	3	**31**
	3-usually	11	3	8	12	5	**39**

Hungarian American Coalition
and the
United States Agency for International Development

presented to

For successful completion
of the

Introduction to Casemapping

for Hungarian Hospitals Seminar.

November 23-24, 1998

Geoffrey D Liss, MBA

George J Pogan, FACHE

Appendix E

OUTLINE

I Introduction

II Casemapping--a tool to manage the care process

A What is casemapping?

B How is it used?

C Who are the players?

D Why do casemapping?

III Structure needed for casemapping

A Committee

B Representation

C Selection of a coordinator

IV Selecting diagnoses to casemap

A Most frequent

B Ease of the first example

C Sense of "expensiveness" of the diagnosis

D Complication frequency

E Surgical vs non surgical

V Focus on "Best Practices"

A Consensus from an interdisciplinary perspective

B Review of external casemaps

C Evaluate Impact of ambulatory care, transportation, home care, follow up and social support systems availability

The Casemapping Program: The Essential Elements and Examples

George J Pogan, FACHE

November, 1998

D Importance of "ownership" of the casemap

E Importance of iteration periodically

VI Identification of cost drivers

A. Pharmacy

B Laboratory

C x-ray

D Special Procedures

E Nursing days

VII Measurement of Change in the Process of Care

A. Selection of medical records for review
Pre-casemap

Post-casemap

B Analysis of variations in care processes

C Fiscal analysis

VIII Organizational and clinical action plans

IX Appendix

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I Introduction

In November 1993, the Hungarian Insurance Fund revised the payment method to hospitals by paying a fixed amount for each admission, rather than a budgeted payment for all operating expense on an annual basis In July 1994, The USAID entered into an agreement to provide a demonstration project in quality assurance and financial management to Hungarian hospitals in order to help them cope with the changes in the healthcare system

As a part of the financial demonstration project, it was recognized that a technique needed to be utilized that could bring together the clinical as well as the financial aspects of the quality of care in order to bring about the desired outcomes of the project

In May of 1995, the project team of George J Pogan and Geoffrey D Liss introduced casemapping to the Flor Ference Hospital and in June 1995, the team went to the Katai Gabor Hospital in Karcag to do the same

The following is a description of the process and the elements which were introduced and implemented at the demonstration sites

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II CASEMAPPING--A TOOL TO MANAGE THE CARE PROCESS

Casemapping, a "hands on" management tool, examines resource consumption for a given diagnosis case mapping involves the identification and evaluation of the resources consumed in the patient evaluation and therapy for a given diagnosis, the timeliness and coordination in the application of those resources to an individual to effect high quality, efficiency and desired clinical outcomes

Casemapping begins with the identification of key processes and important aspects of care It has been adapted from industrial processes in improving the quality of the product and identifying the costs that went into producing the product

While medicine is not manufacturing, because all patients are different, there will be a much higher variation in the process of health care delivery than in manufacturing. For example, a doctor treating a person for hypertension will often encounter co-mobidities such as diabetes to complicate the process But the significant elements in treating all such cases must be identified An administrator looking at the cost of the diagnosis treated recognizes variations in the process due to the uniqueness of each patient but must identify in the aggregate, the cost for the diagnosis

III Structure needed for casemapping.

Therefore, to recognize all the elements, all the players who have input to the patients must be included in the input to the casemap Including the physicians, the nurse, the pharmacist, pathology, clinical laboratory, x-ray, therapies, finance, and administration In other words, the team must be interdisciplinary The team should also include the infection control coordinator, and intensivist

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A coordinator is selected In both cases, the coordinator was the Associate Medical Director and was named by the Medical Directors of the Hospital

A mission statement with related objectives was developed by the respective groups to provide a reference point for " Why are we doing this?"

The team should meet bi weekly at first and lengthened to a monthly basis afterwards, staff should be assigned for the data collection activities, preferably clinicians The team can be broken up into smaller work groups to focus on a particular procedure or process and bring their results to the whole group when completed

IV Selecting diagnoses to casemap

The diagnoses selected to casemap were discussed Some of the criteria advanced were the most frequent, the ease of selecting the first example, the felt cost of the diagnoses, the complication frequency, and both surgical and non surgical diagnoses For example, hypertension was suggested but it was discarded because of the high variability of co-morbidities and management of the diagnosis for the beginning example It was felt it was too complicated to deal with in the beginning The diagnoses selected were Cholecystectomy, with and without laparoscopy, Hernia Inguinale, Community Acquired Pneumonia, and normal delivery and c- section Hernia was substituted for hypertension upon the recommendation of the infection control consultants, due to the high pre (1) and post operative length of stay (5 days)and high infection rate and the subsequent antibiotic usage required for this diagnosis

V Focus on "Best Practices"

When health care providers begin to focus on the best care by carefully analyzing the process of diagnosis and treatment, then all incentives will be aligned in the

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right direction Doctors will advocate best care because of improved outcomes and administrators will accept best care because of its cost effectiveness The beneficiary is the patient, who receives the appropriate care with a good outcome at a reasonable price Casemapping provides the analysis and subsequent actions to the shortest and most reliable path to the "best practices " Manufacturing industries have learned that while technological breakthroughs have improved manufacturing quality dramatically, deliberate small steps to improved quality is the result of many small and incremental changes in a well defined process Peter Senge in his book, The Fifth Discipline, calls this the principle of leverage Therefore, the use of the interdisciplinary team and consensus building as to the "best practice" in the particular institution with the existing processes and resources available is the most enduring way to improve the quality and cost of care Along the way identifying those modifications and interventions that would have a positive impact on the quality

It is important to compare the first iteration of the casemap with externally developed ones for comparison to see which steps and actions may be applicable to improve the care process with in the institution Only adjusting the casemap when consensus is developed to improve the practices or introducing a new piece of equipment which can improve the casemap process Casemapping can be justification for new equipment when it can be shown that the introduction of an appropriate piece of technology can improve quality and decrease cost It can also be a value to conduct a literature search on the diagnosis to look for advances in practice and identification of best practices of other institutions and evaluate whether it can add value to the institution's caremap

In addition, the casemapping exercise can identify and evaluate the impact

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of adding ambulatory care, transportation, home care and other follow up and social support system availability

The most important factor is the "ownership" of the casemap which is developed from working with the process and improving the process and procedures used, making the treatment and therapy of the diagnosis defensible as the "best practice" in the institution

Also, it is important to review the casemap periodically and modify it or reassure the team that the practices and procedures used in the casemap are current and continue to be the best practice for the diagnosis

VI Identification of cost drivers

When prices are identified with specific pharmaceuticals, laboratory and roentgen examinations, special procedures, supplies, and nursing days(length of stay), the casemap can also be used to examine the cost of the DRG, whether the payment received for the DRG is more or less than the cost of providing the care for the DRG The cost drivers can then be examined as to the appropriate utilization, price paid, and whether it adds value to the process and outcome for the diagnosis It is important not to be distracted by the many details of the stay of a patient The focus should be on the handful of potential cost drivers linked to the length of stay, technology, pharmaceuticals, readmissions, availability of supporting resources before and after the stay and other factors that sometimes not so obviously contribute to the cost of a stay

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VII Measurement of Change in the Process of Care

Once the casemap is developed and consensus gained that the best practices are incorporated into the casemap for the institution, it is then appropriate to examine a sample of pre-casemap medical records and identify the elements of care actually provided for that diagnosis Items identified should be

age

comorbidities

length of stay, separate pre and post operative, if a surgical diagnosis

laboratory and roentgen examinations

pharmaceuticals

special procedures

consultations and timing of the consultations

Highest cost items or services provided

Infections acquired

Discharge needs

Coded physician number

previous admissions and relationship to current admission (Y or N)

This is used to develop a baseline(benchmarking) to analyze variations and to serve as a measuring point in time as to the effectiveness of the casemap Data should be collected after the introduction of the casemap to see if changes have occurred in the practice patterns and the amount of effectiveness and efficiency produced by the casemap Analysis of the data can provide a basis for the modification and improvement of the day to day clinical practice and the management of the costs of the episode of care and also provide a basis for further planning of community and supportive services for the hospital A fiscal

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analysis can identify where the budgetary demands will be focused and whether substitution, deletion, or addition of procedures will make the hospital more efficient and give it the ability to manage within the resources available as well as free up resources to give a greater degree of discretionary spending It will also provide justification to the National Insurance Fund that the resources consumed by the hospital for the diagnosis is appropriate and build a basis for adjusted reimbursement for the episode of care

Casemapping Project

Introductory Remarks

George J Pogan, FACHE

Jo reggelt, kivanyok!

Thank you for inviting us And special thanks to this hospital who agreed to serve as a host hospital for this project

We hope you have fun in the next two days, because you won't learn much if you don't have fun in the process

This project is a follow up step from a 1995 project that the participants felt would be a valuable tool for other hospitals to experience Through the sponsorship of USAID and the Hungarian American Coalition, we were again able to come to Hungary and put on this project Although, the teaching of casemapping is a brief effort the productive use of casemaps is an ongoing effort which we hope you will take with you to improve the quality and cost picture at your hospital

We envision our role as a catalyst for change

We strongly believe that regulation through rate setting does not by itself produce optimal changes in the delivery of health care and increased efficiencies Casemappping is the best known way to evaluate how care is delivered versus ways to improve both cost and quality of care from an interdisciplinary perspective

The future efficacy of casemapping and development of best practice guidelines will require the collection analysis and dissemination of country wide data and experiences

That role is clearly one which could be undertaken by the MOH in collaboration with hospital and one or more of the country's medical schools

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Our approach is the development of casemapping that is interdisciplinary within the hospital and immediate community

There are several reasons for this approach one, is that in the US efforts to develop casemaps and compliance to the various guidelines usually fail when the casemaps are standardized, externally developed ideals of how the best care should be delivered

It is not feasible to develop guidelines without the proper training, experience and resources that are needed to implement and monitor best practices

In many cases there is no real consensus on what is the best practice for a given set of diagnoses and complications The hospital staff must be allowed some latitude to develop and enforce their own set of operating standards

There are many benefits to this approach Researchers in the US have found that as more data is gathered, actual outcomes frequently vary from the expected outcomes because there are variables when affect outcomes which were not identified during the development of the original best practice

There is no question that one could design a set of guidelines that govern how care is delivered in every Hungarian Hospital Those rules would be impossible to enforce because doctors, nurses and others may be able to make the transition In many cases they would be obstinately unwilling to comply and feel a sense of loss of autonomy that is the opposite of cooperation and authorship

As a practical matter, the best way to make the transition to best practice management is to give the participants a role in designing the system

The MOH could coordinate those activities by compiling data providing feedback and training to those staff who would be responsible for variance reporting at each hospital

With this rationale, we come to work with you experts to start, improve and refine your quality and cost processes

$1

A kórházakban is fontos szempont a gazdaságosság

A szombathelyi Markusovszky-kórház, az Országos Orvosi Rehabilitációs Intézet, a Debreceni Orvostudományi Egyetem és a karcagi Kátai Gábor Kórház mellett a csornai Margit Kórház is részt vesz abban a Magyar Amerikai Koalíció által támogatott „Esetterképezési programban", melynek szemináriumát a napokban tartották az intézményben

George J Pogan

Geoffrey D Liss

Az esetterképezés mint az irányítás legkézenfekvőbb eszköze, megvizsgálja egy adott diagnózisforrás felhasználását. Ehhez tartozik a beteg kivizsgálásakor és az adott diagnózis kezelésekor felhasznált források azonosítása, valamint annak értékelése, hogy időszerűen és összehangoltan alkalmaztak-e ezeket a forrásokat annak érdekében, hogy a beteg magas szintű és hatékony kezelést kapjon, amely eléri a kívánt eredményt. Azt az esetterképezést az amerikai *George J Pogan* és *Geoffrey D Liss* munkacsoportja 1995-ben vezette be Magyarországon. A csornai Margit Kórházban megtartott szemináriumot ugyancsak George J Pogan és Geoffrey D Liss vezette, akik tagjai a Magyar Amerikai Koalíciónak. A két szakember a rendezvény után tájékoztatta a Kisalföldet.

– Azért töltöttük itt, a kórházban ezt a két napot, hogy a kórház dolgozóival megbeszéljük, miként lehet eljutni oda, hogy gazdaságos körülmények között a legjobb minőségű ellátást kapja a beteg – mondta Geoffrey D Liss. – Nagyon fontos a gazdaságosság, hisz Magyarországon nem bővelkednek anyagiakban a kórházak. Azt viszont tapasztaltuk, hogy az orvosok és az ápolószemélyzet elkötelezettek az iránt, hogy összhangban legyen a jó minőségű ellátás és a gazdaságosság, s az anyagi háttérhez, a technikai felszereltséghez képest igen jó munkát végeznek ebben a kórházban. A megtakarításnak az is egy formája, hogy mikozben elvégzik az összes szükséges kezelést a betegnél, ügyelnek arra, hogy ne végezzenek dupla munkát.

– Nem konkrét receptekkel érkeztünk, nem kívántuk meghatározni, hogy mit hogyan kell végezni – fogalmazta George J Pogan. – Segíteni próbáltunk abban, hogy az itt dolgozók saját magukat vezessék rá arra, miként kell gazdaságosan tevékenykedni. Különböző amerikai példákat mutattunk be, ezek közülük a megfelelőbbeket kell alkalmazni. Az mindenképpen jó irányba visz, hogy az intézmény dolgozói ügyeknek megoldani a jelentkező gondokat. Egyébként ez egy nagyon szép ideális nagyságú kórház, melynek a kulturáltsága és a benne folyó munka egyaránt elismerésre méltó – nyilatkozta végezetül lapunknak George J Pogan.

Haszonits József

Cél a közbiztonság javítása

Véradás

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Government claims extra money will be used for regular treatment

State to offer health care services for cash

by Marton Burger

MASSIVE Hungarian health care and social security reform will allow those who can afford it to buy extra services within the framework of state controlled system from the year 2000

The plans of the Health Care Ministry and Social Security Funds include the establishment of four new social security funds where anybody would be able to buy extra packages of health care services

Every citizen must continue paying regular health care contributions but special packages will allow them to receive extra services like dental treatment, sport medicine or treatment in special-health resorts However Gabriella Selmeczi State secretary in charge of social security said this would not split social security into a fund for the rich and a fund for the poor

The standard of medical services for those who pay their regular contribution only will not be any worse than it is now Selmeczi said Around 15 30% of the contributions for the extra packages will not be spent on financing those extra services but instead will go to the regular health fund in order to raise the quality of that too

Selmeczi used the example of hip replacements, for which patients must currently wait several months because the central budget can only finance 100 a year

But some extra packages will include instant hip replacement surgery And as a result of the extra cash the number of regular hip replacement operations could rise to 120 annually

This way the patient will be able to improve their situation in hospital without paying under the counter' said Health Care Minister Arpád Gógl.

The four new funds will be subordinate to the central National Health Fund which currently distributes all the money in the state owned health care system

Private hospitals are operating in Hungary but according to the minister people will soon not be interested in using their service because the state system will offer all the extras for significantly less money

At same time in accordance with the Government s programme regular social contribution will be reduced to half by the end of the four year parliamentary period

BEAUTIFUL OCCASION Márta Csillik, winner of the Hungarian final of the Super Model of the World contest, held in Dokk cafe, Budapest, celebrates with the other entrants

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A GUIDE
for
DEVELOPING
A CASE MAPPING PROGRAM
for
HOSPITALS IN HUNGARY

This guide was prepared by

George J Pogan, FACHE

Geoffrey Liss, MBA

under the sponsorship of the Hungarian American Coalition in cooperation with the US Agency for International Development (Project #180-0038 85)

November 1998

CASE MAPS

A TOOL FOR QUALITY AND COST IMPROVEMENT

WHAT IS CASE MAPPING?

Case mapping is a "hands on" management tool that examines the process of care and resource consumption for a given diagnosis It is a working document for quality_improvement On paper, it is an examination of how care is best delivered for that diagnosis

A case map provides to each caregiver their most appropriate contribution at critical steps along the patient's episode of care in order to produce the best possible outcomes

The Case Map begins with the identification of key processes and important aspects of care It is the result of an ongoing process in which a group composed of multiple disciplines within a hospital form a work group that maps out the most efficient and effective course of care for patients with similar medical needs

Case maps are based on best practice guidelines that are derived from medical literature and the collective experience and opinion of all caregivers in the group

Definition

Case maps, also referred to as clinical paths, were first defined as, a set of key nursing and physician processes and corresponding timelines that a patient must undergo to achieve standard outcomes within a DRG-specific length of stay "

It has been alternatively described as "a collaboratively developed hypothesis that describes what the health care team believes is the best way to manage patients care given the resources available to the provider at that point in time "

There is a critical difference in the two definitions The first represents a rigid static model while the second emphasizes the need to continually evaluate the process of healthcare as the resources available change and new medical interventions replace old ones It also acknowledges the need for case maps to be the product of the collaborative efforts of that hospital's staff, having earned the support through consensus building

There is no single solution to providing optimal care due to multiple variables, so each hospital will develop case maps that may be different or evolve at differing rates as the case maps are continually reviewed and changed it is, in fact, a Continuous Quality Improvement (CQI) tool

SETTING GOALS

Every case map must have a goal The goal may be

- reduced post operative infection rates
- reduced decubitis ulcers
- fewer acute days of stay
- using appropriate drugs or other supplies and services
- providing the needed care efficiently

Having accurate data about the cost benefits of each change is important due to limited resources in health care However, best practice models usually minimize unnecessary services or therapies that do not contribute to the patient's treatment Therefore, cost reductions occur naturally

Exhibit IV.

Exhibit IV is an example of a Variance Report

Exhibit V

Exhibit V are examples of a one-page Case Map Progress Report which are used to summarize the results of case mapped care versus the base line care provided prior to case mapping

HOW TO.... CASE MAP

THE TEAM

Assemble a multi-disciplinary team including physicians, nurses, lab, pharmacy, finance and administration It is preferable to use heads of departments Direct involvement of the hospital leadership also is needed

The contributions from each discipline are invaluable More importantly, all parties must share the same commitment to improving the process of patient care

The first order of business is for the team to agree on the mission of the casemapping project This should be a concise statement with objectives clearly identified

Step 1

The Team

Select Your Committee!

Physician(s)

- Anesthesia _____
- Internal Medicine _____
- Surgeon _____
- Pathologist _____
- Pharmacist _____
- Clinical laboratory _____
- X-ray _____
- Therapists Occupational _____
  Physical _____
  Respiratory _____

Finance _____

Administration _____

- ♦ Coordinator _____
- ♦ Facilitator _____

Mission Statement (Why we are doing this)

_____

_____

SELECTING DIAGNOSES AND CASES

DX

The team evaluates the most common diagnoses (DRG's) as to cost and frequency in order to select a manageable pilot group to case map Because simple or obvious changes in process that can improve performance take time and case that one chooses should not be complicated Selecting stroke cases, while ripe with opportunity for improvement are too complex in that there are a multitude of variables that differentiate optimal paths of care and results can vary accordingly

Cases

In choosing which population of patient (DRG) to case map, the team should begin with cases which do not present multiple complications but represent a sufficient volume and/or cost to the hospital Those cases that may have avoidable post op infections or excessive drug use were selected by the demonstration hospitals

Avoid selecting more than four or five DRG's for the first year of the program Hospitals tend to underestimate the amount of time and effort it takes to develop and fully implement the case maps

A reasonable sample of cases for baseline should be done The smaller the number of discharged cases in the diagnoses, the higher the percentage of the sample For example, if only 30 cases were in the diagnosis for the time period (1year), then at least 33 1/3% of the cases should be selected for review If there were 100 cases, then a 20% sample should be enough However, if there is a wide variation in the length of stay of those cases, more cases should be selected at random

Step 2

SELECTING THE DIAGNOSIS

* Most frequent diagnoses	Frequency
_____	_____
_____	_____
_____	_____
_____	_____

* Complicating factors	Factors	Frequency
	_____	_____
DX_____	_____	_____
	_____	_____
DX_____	_____	_____
	_____	_____
	_____	_____

Select the DX with fewest complicating factors

Surgical	Non-surgical
[1] _____	[1] _____
[2] _____	[2] _____
[3] _____	[3] _____

Step 3

TEAM EFFORTS

Education is the key to ongoing success Team members must study the literature and/or have access to a facilitator from outside the hospital, e g , a neutral third party

The team must

- be clear about how case mapping works,
- establish realistic goals,
- fully support the changes necessary to follow the case maps

"The best way to understand something is to try to change it" That being the case, the process of studying how care is delivered in your hospital will be informative

There is no question that physicians' support and input is vital to this approach to managing care Where data about cause and effect (outcomes) are continually provided and updated, physicians will continue their support Conversely, failure to produce the data to support the effort will surely lose their support

Step 4

SETTING REALISTIC GOALS

A description of the goals for each case map should include

☒ A baseline database created from a review of sample of DRG's pre-case mapping

☒ Expected, measurable changes in patient outcomes

☒ Cost savings that will result

Validation

The impact of case maps can be validated through comparison to the base line as well as other benchmarks

Step 5.

VARIANCE REPORTING

SEE EXHIBIT 4

Case maps should be available on patient charts so that prescribed steps are checked off when completed More *importantly, variances from expected patient status should be* noted

The variance reports serve to describe the flaws in the case maps or the process of care The case map teams will compile that data and determine how to modify either the process of care or the case maps to minimize any undesirable variances Some variances may not justify any remedial action

Step 6

REPEAT

- Meet regularly to repeat steps 1-5
- Share findings regularly with all staff in the hospital
- Invite input from staff to improve case map
- Create consensus for eventual and ongoing use

MONITOR PROGRESS

Review casemap

Documenting complications and comorbidities helps to stratify the case maps into more similar groups from which to draw conclusions about patient outcomes What you try to do is determine which variances effect outcome versus those which do not matter

Modify casemap

The presence of certain comorbidities may require splitting that DRG into two or more case maps The case map team must routinely evaluate the data and make only those changes that have the highest potential for positive impact on patient outcome

Sharing information with other hospitals can also help to resolve issues as well as maintain support for ongoing work

Case mapping provides the analysis and subsequent actions to the shortest and most reliable path to the best practices The use of the interdisciplinary team and consensus building will improve quality and cost of care

IMPLEMENTATION ISSUES

CASE MAP PART OF PATIENT CHART

It is important that the case map be part of the patient chart in order to insure compliance and allow for timely and accurate descriptions of variances as they arise As the case map team revises the case maps, they will decide which map variances require continued reporting or concurrent action at the point of service

PC computerization has evolved to the point that analysis of variance data can be done by a few people The use of computers to graph results is helpful in visually grasping the relevance of the data Data base software can be used to simplify the collection of data There are a few software packages designed for case mapping which can be used on a freestanding PC to make the data collection easier, more timely and more uniform as well

Standardization of case maps and the variance reporting function is very desirable Variance reporting is a vital yet potentially complicated process unless a set of words or phrases are adopted to communicate the reasons for variances

EXHIBIT 1

Casemap	Direct Cost	Overhead
☑ **Cholecystectomy**		
New Admission	with Lap	without laparotomy
Laboratory Utilization		
CBC		
Kidney function		
Potassium		
Magnesium		
Amylase		
Liver function		
Blood group		
C R P		
Urine analysis		
Prothrombin analysysis		
Microbiology		
Histology		
X ray		
Ultrasound		
Stomach		
ERCP		
Pharmacy		
Laxatives		
Spasmolytics		
Antiobiotics		
Gentamycin		
Ampicillin		
Doxicyclin		
Ciprox		
3rd gen Cephalosporin		
Infusion		
Anaesthetics		
Doxamine		
NSAIDS		
Procedures and Supplies		
EKG		
Misc supplies		
Disposables		
Hotel Services		
Dietician		
Parenteral Nutrition		
Housekeeping		

Anesthesia	Direct cost	Overhead
Preoperative visit by anesth		
Phentanyl		
Vecoronium, normarium		
Nitrous oxide		
Oxygen		
Infusion		
Monitoring during and post surgery		
Antagonists		
Physostygmine		
Naloxyn		
Anexaid		
Postoperative visit 24 hrs later		

Nursing

Admission Day

- documentation
- draw blood
- linen change
- disinfect bed
- b/p, temp,pulse, resp
- administration of medicat
- order diet
- serve foods
- consult, organize
- schedule transportation
- organize preoperative preps
- wash patient
- enema

2nd day nursing (day of surgery)

- give preop meds
- Enforces NPO
- Measures vital signs
- Anesth orders
- Adm infusion
- Medications
- Observes wound, monitoring

3rd day (second postop. day)

- changes dressing
- routine care
- patient teaching

Discharge day **Direct Cost** **Overhead**

routine care

patient teaching and advice

Total Cost for the Admission

****

Day of Admission

CAB

Xray and ultrasound

gynecologic exam

anesthesiolology exam

2nd day

consults

surgery (sometimes)

3rd day

surgery (usually)

intraoperative Xray (15% of cases)

recovery room

If any complication

ICU for X hrs

4th day

mobilization

laxative

pain medication

infusion

5th day

medications

discharge planning

remove drains

6th day

change dressings

wait for discharge

7th day

remove sutures

8th day

discharge

Total Costs for the Admission

Possible Solutions

Surgery 1st day
Out Patient Testing
Anesthesia Co-operation
Streamline Lab Results
Patients' Compliance
Establish PRG Admission for Testing
Schedule surgery on that date within 3-4 days
Make times of consults more efficient
Need better communication with ambulance and transportation
Cannot operate before 9 50 a m , anesth covers the ICU
30 min turnaround time for O R ,but it takes 90 minutes to start the next case

Resource Consumption Model for

Normal OB 313M

Laboratory

Bacteria culture
CBC
Urine analysis
Xray
Ultrasound

Pharmacy

Oxytocin (1,2)(pre-deliv)
Vitamin B
Papaverin IM
Oxytocin post delivery
Alkaloid
Laxative

Procedures

Episiotomy
I v 30% (oxytocin)
Local anasthetic
Umbilical blood drawn
Rho Gam (5% of cases)
HEP B screen (if father +, Ig, Inv)

Normal OB

Pre-Admission

9-10 visits prenatal	Hep B screen
Ultrasound x3	BP/Temp
Blood draws x3	Iron
Urine analysis	Folic acid
AFP screen	Magnesium
Multi vitamins	

Admission Day (Day 1)

Documentation
Physical exam
Patient prep - wash, shave
Monitor contractions
Delivery room (2 hrs post delivery)
Transfer to OB ward
Wash
Transport
Monitor

Days 2-5

Episiotomy care
Monitor BP/Temp
Blood draw
Urine analysis for culture only
if temp up sedimentation rate
protinuria
acetone
albumin

Nursing Care

Rooming in
Breast feeding assistance
Normal nursing care of newborn
Doctor visits 1 major, 2 minor daily
Neonatalogist daily visit
New Mothers Club advise and video

5th Day

Remove sutures from episiotomy
Documentation
Discharge instructions and individualized advice

C-section

Anesthesia - Regional
Spinal Marcain 1 ampule
Cephalin 1 ampule
Infusion 3 litres
Urinary catheter
Oxytocin 6 ampules
Uterine culture

Postoperative days 1 and 2

if complications up to 2 days, extra documentation, catheterization, if temperature up, culture, catheter
2 litres Infusion
10 ampules Oxytocin
8-10 Analgesic
NSAIDS
Liquid diet 1
Light solids, day 2
Laxative day 2

Days 3-5

Oxytocin
Analgesics
CBC
renal function test
Blood sugar, albumin
Electrolytes
Bilirubin
Magnesium

Day 6

Remove sutures (1/2)

Day 7

Remove sutures (1/2)
Discharge

Pneumonia 346 3

Characteristics
- Approx age 70
- Usually ischemic Heart Disease
- Diabetes
- Hypertension
- Alcohol
- Smoking
- ALOS 7 4 days

Evaluation
- Laboratory
- Blood Sugar
- (If emergency, results are available in 1-11/2 hours*)
- Serum
- Nitrogen
- Potassium
- Sodium
- Sputum culture
- <u>if Hypertonic</u>
  - Hg
  - Sedimentation rate
  - Complete urine analysis
  - Blood sugar
  - Serum
  - Creatinine
  - Sodium
  - Potassium
  - *Cholesterol
    - HDL
    - LDL
    - Triglycerides
  - *Uric Acid
    - Bilirubun
    - Transaminase
    - SGOT
    - SGPT
    - Alkaline phosphatase
    - LDH
      - *not needed if not hypertonic

Therapy

Ampicillin
Brulamycin
Diaphyllin IV
Expectorant (per os or IV)
if needed, oxygen

By Day 5

if temperature is above 37 7 C, start new combination of antiobiotics
CIPROBAY or Cephamandol
if needed, if patient turning worse
Chest X-ray

By Day 7

wbc, sedimentation rate
examination

Discharge criteria

temp normal for 24 hours
WBC < 10,000
sedimentation rate down

Resource Consumption Model for
Hypertension (134 M)

Characteristics

- Average age 60
- High cirrhosis Incidence
- High smoking rate
- High alcoholism
- Diabetes 30-40%
- Obesity
- Heart co-morbidity 50%

Laboratory

- Hg
- HcT
- Sed
- Urine complete
- Blood sugar
- Serum
- Creatinens
- Sodium
- Potassium
- Cholesterol HDL,LDL, triglycerides
- Uric acid
- Bilirubin
- Transaminase
- SGOT,SGPT
- Alkaline Phosphatase
- LDH

Xray

- Chest Abdominal ultrasound

Procedure

- EKG
- Consults neuro, ophthalmology, gyn (if female)
- Angiography
- Isotope scan (patient sent out to Rokus Korhaz)

Pharmacy

- ACE inhibitors
- Beta blockers
- Ca channel blockers
- Diuretic - Lasix
- Ebrantil -IV

Procedure to sort

Primary vs secondary
17 Ketosteroids
Cortisone
Examination of Suprarenal Gland
CT
MRI (if CT abnormal)
Angioraphy

Hypertension

Day 1

Blood Pressure
Agressive treatment
IV-Lasix, Ebrandil
Lab - Potassium
EKG
Xray chest
ltrasound

Day

otal Lab exam (6 hrs turnaround)
epeat tests, if necessary
otassium, sodium, creatinine clearence
ysician visit
lean catch urine test

Day

eta blocker (if no heart failure)
/P check
harge meds, if needed
V - Lasix
Nifedipine
Antiobiotic, if necessary

Day 6

Discharge, based on med response
Urine analysis - clean
If diabetic, then higher infection rate
Problems at discharge
-Living alone
-No home care available
-Food problems
-Heating problems
-No key
-Consult arrangements, priority by other spec

Actual Consumption by Case Review

Normal OB

Case 1 LOS 4 days

Lab
1 cervical culture
CBC
Urine analysis
Blood sugar

Xray
1 abdomen
1 ultrasound

Pharmacy
3 amp oxytocin
500 cc glucose
glycerin suppository

Case2 LOS 7 days, 2 days past due, baby> 4000 gr

Lab
2 blood work
serum cholesterol, creatinine
Bilirubin
Alkaline phosphatase
SGOT
SGPT
Serum protein
Carbon
Blood sugar
Uric acid
Cervix culture

Cardiac monitor
Ultrasound

Pharmacy
3 amp okytocin
Laxatives

Case 3 C-Section, 8 days LOS, spinal anasthetics

Lab
2 blood CBC
2 chemistry profile
2 urine analysis

1 EKG
2 consults
anesthesia
internal medicine
1 ultrasound
1 non stress test

Pharmacy
5000 cc Isonex IV
24 oxytocin
4 Lasix
6 Algopirin
300 mg Rhogan
2 bottles - plasma expander

Case 4 8 days LOS

Lab
2 blood CbC
2 urine analysis
2 chemistry profiles

1 EKG
4 consults anesth internal med , ent , ophtal
2 ultrasounds
3 non-stress tests

Pharmacy
5000 cc infusion
24 oxytocin
8 Algopyrin
1 cephalosporin
Laxatives

Actual Consumption by Case Review
Cholecystectomy

Case 1 10 day LOS, gangrenous

Lab
Blood sugar
(workup done in Int Med Clinic)

Pharmacy
3 Claforan
2x500 cc Metrodinazol
6 Laxatives
Analgesic
Discharge Home 7 days post op

Case 2 7 days LOS, diabetic

Lab
7 blood sugar
2 urine analysis
1 chemistry profile
1 blood group
1 EKG
1 consult anesth

Pharmacy
Antidiabetics
Tensiomen
Analgesic
Pre op med Atropine, Dipidol
6 Laxatives

Discharge Home 5 days op

Case 3 LOS 5 days

Lab
complete LAB
1 consult anesth
1 ultrasound

Pharmacy
2 Dormicum
1 Dipidol
6 Laxatives

Discharge Home 3 days post-op

Cholecystectomy with laparoscopy

Case 4 LOS 6 days

Lab
2 urine analysis
1 blood
1 chem profile
1 blood group
1 EKG
1 consult anesth

Pharmacy
1 Sanox
1 Claforan
1 Dormicum
1 Dolargan
6 Laxatives
Discharge Home 3 days post op

CASE 5 LOS 7 days

Lab
1 chem
1 blood sugar
1 blood group
1 urine analysis
1 EKG
1 consult anesth

Pharmacy
3 Corinfar

1 Rudotel
1 Dormicum
1 Claforan
6 Laxative

Discharge Home 4 days post-op

Case 6 LOS 6 days

Lab
1 chem
1 urine analysis
1 blood group

1 EKG
1 anesth consult

Pharmacy
1 Dipidol
1 Claforan
Atropine
Pipolphen
6 Laxatives

Discharge Home 2 days post op

Case 7 LOS 4 days

Lab
in ER

1 EKG

Pharmacy
Librium
pain inj
6 Lax
Algopyrin

Discharge Home 2 days post op

Resource Consumption
Pneumonia

Case 1 LOS 14ds lung abcess

Lab	X ray	Proc	Pharmacy
1 HG,Hct	2 chest	1ECG	Claforan after 5th day
1 sed	1 u sound	1urol c	Zinnax
1 ua			Augmentin
1 Bili			Corfinal
1 serum Creat			Augmentin
1 carb			Nitromint
1 Nitrogen			Lasix
1 Alk phos			Amylinid
1 creat kin			Euthylung
1 LOH			IV Distien
1 blood sug			IV oxylazol
1 SGOT			IV Rindex
1 SGPT			Heparin
Curative 7 day			
1 sed			
1 Bili			
1 Potassiu			
1 Sodium			
1 LDH			
1 sed			
1 chem profile			

Pneumonia

Case 2 LOS 15das PN
heart failure, ischemic heart disease, chronic bronchitis

Lab	Xray	1 ECG	Pharmacy	
1 sed	3 chest		Gentamycin (7 ds)	Trental
1 chem prof	1 u sound		Ampicillin (8 ds)	
1 blood sugar	1 head Xray		Zinnot	
1 alk phos	(due to fall)		Diaphyllin	
		1 neuro cons	IV oxylasole	
		1 ophtal	IV Lasix	
		1 surg	Nitroderm	

Expectorant
Baconyl

Pneumonia

Case 3 LOS 14

Lab	Xray	Pharmacy	
1HG	1 pre-admit	Claforan (6 da)	1 ECG
1 WBC	1 Xray D 10	Gentamycin (7da)	
1 sed		IV Augmentin	
1 VA		IV or oral	
1 chem prof		Algopirin inj	
1 WBC-control		Andaxin (14 da)	
1Hg			
1chem			
1 sed			

Resource Consumption

Hypertension

Case 1 LOS 8 da

Lab	Xray	Proc	Pharm
1 WBC	1 ultra	1 cons	Nifedipine
1 Hg, HcT	1urogrph		Trental
1 sed rate			Hpthiazid
1 chem prof			SLO-
1 Thyroid inct			EDNYT

Case 2 with athrscl obliterans
LOS 7 da

Lab	Xray	Pharmacy
1 Hg, HcT	1 DSE Angio	EDYNT
1 thrombocid		Corfarid
1 blood group		Cordaflex
1 pro time		Estulic
1 Coag profile		Infusion
1 chem profile		Trental, Zamp -da
7 da control		Nitramid
1 pro time		
1 chem profile		

Case 3 obesity, impaired glucose tolerance
LOS 9 da

1 sed	1 ECG	Abrantil
1WBC	1 opth cons	E DMXT
1 Hg,HcT		Norbese
1 Thrombocid		Diclofenall
1 UA		
1 chem profile		

Case 4 with Angina, ischemic heart disease, heart failure
LOS 3

1 sed rate	1 chest Xray	EDMYT
1 Hg,HcT	1 sig colon	Nifedipine
1 WBC	1 ECG	Amlorid
UA	1 Rheum	Ulceran
chem prof	1 opth	Ruditel
Ua (9 da repeat)	1 gastroscope	Voltaren
		Paracetamol
		Egroton

Potassium
Nitroderm
Olicard cap
Antagel
Nilasid
Estonic

Case 5 Atheroscel Ischemic heart disease
LOS 9 da

Ua	1 ECG	Nitroderm
Hg,HcT	1 chest	Panangin
WBC	1 abd ultra	Inh base
Thrombolyt s	1 sigmoid	Tisasen
sed, rate		Andaxyn
chem profi		Tisacid
Ua-repeat a		Ine Glycerin
Chem repe 7 da		Trental
		Estonic tab

Case 6 hiatal hernia, esophagitis reflux
LOS 8

1 Hg, hct, wbc	1 gastroscope	EDMYT
thrombocytes	2 ECG	Corinfar
Ua	1 abd ultrasound	Sevenal
sed rate	1 chest	Brindlix
chem prof	1 surg cons	
1 da repeat	1 gyn,cons	
chem	1 opthal	
serum iron bonding		
excretion -Acidity		
Hemocult		

EXHIBIT 2

S E B É S Z E T I O S Z T A L Y

C H O L E L I T H I A S I S

kivizsgált betegnél

1 nap

Orvosi tevekenyseg

- beteg efel
- fizikal vizsgalat a kezelőhelyisegben minden beteg utan tiszta lepedo felhuzasa illetve desinf as
- korlap egirasa
- therap elrendelese 3x2 tb No-Spa 3x2 tb Papaverin,
- labor vizelet amilase, vercsoport + Rh We
- 2x osz yos orvosi vizit
- 2x foc osi vizit
- beteg apotváltozasanak nyomon követese regisztrálása
- EKG sgalat elrendelese
- belgy vaszati es anaesth cons kérőlap megirása
- a bet felvilagositasa psyches előkeszitese
- mute iras elkeszitese (orvosimok legepeli)
- belgv gyaszat, anaesth cons -on elrendelt therapia figyelemmel kisérese, ezzel kapcso atos orvosi utasitasok

Nővéri tevekenyseg

- betegfelvetel hazirend ismertetese
- beteg bemutatasa atoltoztetese (haloing kontos papucs adasa)
- adminisztracios feladatok korlap betetlap lazlap betegfelveteli jkv nyilatkozat etelrendelő lap labor kerőlap megirasa
- rutinvizsgalatok elvegzese RR meres pulzus meres 2x homerőzes (2 tb Neomagnol fertőtleniteshez) vizelet altalanos vizsgalat (Ehslich Nylander Kálilug Szulfo-Szalicilsav reagensbol 2-3 csepp 4 db kemcső borszeszegő vizeletmero pohar 1 db vastagtalpu uvegcso gumikesztyű)
- vervetel vercsoport Rh savo We egyeb (zart verveteli rendszerhez szukseges eszkozok

gualo gumi 3 db vattabuci Kodan desinfitiens gumikesztyű leucoplast csik vesetal ollo előkeszitese letakart talcára vervetel utan eszkozok rendbetetele)

- We vizsgalat elvegzese dokumentálása
- Ekg keszites minden beteg utan tiszta textilia elektrodak fertőtlenitese, 4-5 db gezbuci
- beteg psziches felkeszitese a konziliumokra
- beteszallitokkal kapcsolatfelvetel (telefon)
- Sz e borogatas 1 db pelenka
- segedkezes a viziteken
- belgyogyaszati anaesth cons -on elrendeltek megadasa (nyugtato altató tbl sz e infusio)
- gyogyszereles (3x naponta etkezes utan)
- delben a beteg mar csak szűrt levest kap, ezutan folyadekot fogyaszthat
- beteg psyches - somaticus előkeszitese a műtetre
- pihenes biztositása
- műtéti beleegyezes alairatasa

2 nap

Orvosi tevekenység

- 2x osztályos orvosi vizit
- 2x főorvosi vizit
- **opus (narcosisban)**
- beteg állapotának eszlelése, ezzel kapcsolatos adminisztrációs feladatok
- therapia fajdalomcsillapító (3x1 a Demalgonil inj műtet után), élettani paraméterek egyeb figyelmmel kiserese
- labor "S" vizelet amilase

Nővéri tevekenyseg

- beteg hygienes szüksegletenek biztositasa (zuhanyzo helyisegben segedkezes a mosako dasnál)
- tiszta haloing adása
- 2 db fáslí felhelyezese az also vegtagokra
- beteg előkeszitese műtetre
- ha a betegnek műfogsora van mechnikus tisztitas utan műfogsor tartoba helyezese

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- elokeszites im injectio beadasahoz (inj oldat 1 db 5ml-es fecskendő 1 db szerumtu 1 db im inj tű Kodan desinfitiens oldat 2 db vattabuci steril gumikesztyű vesetal)
- 3x500 ml infusios oldat (RL-R5-R)
- elokeszites infusio bekotesehez (infusios oldatok+inj "kosar" gumilepedő, papirvatta strapulaló gumi Kodan disinfitiens jod 2 db steril branule 1 db steril inf szerelék 5 db vattabuci gumikesztyű vesetál infusios állvány)

  Amenn iben a praemeditatio inj -os oldatot ir elő - szakszerű inf oldatba helyezese ezeknek a zza szukseges eszkozok (ampulla reszelok, steril tűk fecskendők stb)
- a bete psyches vezetese
- korter agy rendbetetele sz e teljes agyneműcsere

Nőven t ekenyseg postoperativ orzoben

- beteg anak előkeszitese (teljes agyneműcsere ágy fertőtlenitese, gumilepedő, harantlepedc askotő)
- beteg amatos eszlelese (elettani parameterek -RR, pulzus, legzés, testhő- regisztralasa és őlap pontos vezetése, haskotő felhelyezése, duod szonda levezetése -1 db steril duod nda, 20ml-es steril fecskendő leukoplast, ollo, vesetál, gumikesztyű, papirvatta)
- fájdal csillapito adása (3x10 Demalgonil im - 3 db steril 2ml-es fecskendő, 3 db Se tű, 3 db ir ű 8 db vattabuci 3 par gumikesztyű, Kodan desinfitiens, vesetál, amp reszelo)
- 'S" U ilase levetele laborba juttatasa (vizeletes pohár, laborkérő lap, üvegcső, gumikesztv)
- beteg atasa (csőros cseszében, keserű tea biztositása)
- beteg aladekainak levetele
- vizelet ll székletürites korulményeinek biztositása (ágytál, kacsa, vesetál)
- sz e bc rogatas
- segédkezes az orvosi viziteken

3 nap

Orvosi tevekenyseg

- beteg allapotanak figyelemmel kiserese
- 2x osztalyos orvosi vizit
- 2x foorvosi vizit
- therápia elrendelese (3x2 ml Droperidol inj im)
- sz e labor (Hgb Se Na Se K KN stb)

Nővéri tevékenység

- higiénés szükséglet biztosítása beteg teljes mosdatása
- 3x RR, pulzus és testhőmérséklet mérése ill jelölése az észlelő lapon
- beteg folyadékbeviteléről gondoskodni (tea)
- segédkezés a vizíteken
- 3x im inj beadása (3x2ml Dropendol inj 3 db 2ml-es steril fecsekendő 3 db steril Se tű 3 db steril im tű 3 db gumikesztyű Kodan desinfitians vesetál, 4-6 db vattabuci ampulla-reszelok)
- vizelet, széklet ürítés biztosítása (4-5x-i agytál ill kacsa desinficiálás)
- beteg kórterembe történő visszahelyezése
- teljes ágyneműcsere (betegágy és éjjeliszekrény desinfitiálása)

4 nap

Orvosi tevékenység

- 2x osztályos orvosi vizit
- 2x főorvosi vizit
- hasi drain eltávolítása
- therapia elrendelése (3x2ml Dropendol inj vagy 3x1 ml Demalgonil inj
- beöntés elrendelése
- beteg állapotát figyelemmel kísérni

Nővéri tevékenység

- beteg mosdatása (harántlepedő csere háló ing csere fáslí megigazítása)
- segédkezés a vizíteken
- asszisztálás hasi drain eltávolításánál (2db gumikesztyű 1 db steril ollo 1 db steril csipesz 3 db steril vattabuci vesetál)
- egyszeri kötéscsere (papírvatta 4 db steril becsilap steril gumikesztyű st csipesz 30cm 10x15cm-es Mefix kötöző vesetál)
- beöntés megadása (gumilepedő tiszta lepedő beöntőkészülék kóher steril beöntőcsők vaselinum album, 2-3 db steril becsilap papírvatta gumikesztyű agytál beöntőfolyadék) Ezután beteg tisztába tétele
- 1-2x RR pulzus mérés 3x testhő méres

fecskendő 3 db Se tű 3 db im inj tű Kodan oldat 6-8 db vattabuci 3 db gumikesztyű ve setal ampullareszelő papirvatta)

- beteg fokozatos mobilizalása (legző ill labtorna)
- bő folyadékbevitel
- szeklet vizelet urites biztositasa
- szonda ex biztositasa
- beteg psyches vezetese nyugalmanak biztositasa

5 nap

Orvosi te ekenyseg

- 2x oszt s orvosi vizit
- 2x foor i vizit
- Therap 3x2ml Dropendol vagy 3x1 a Demalgonil inj)
- betegg valo kommunikáció
- sze e l or vizsg elrendelese

Nőveri vekenyseg

- segec ezes a reggeli mosakodásnál
- sz e á ynemő csere, tiszta hálóing adása
- 3x hőmerőzes, 1xRR, pulzus meres
- keserőso adasa (2 ek Magnesium sulfunicum)
- segedkezes a vizteken, vizit tételes kidolgozasa
- foly -p pes etrend rendelése, sz e diétásnővérrel konzultálni
- 3x-i etkezes per os folyadekbevitelről gondoskodas (beteg felvilagositasa a dietarol) segitsegadas a mobilizalasnál (-3x-i injectiozas 3x2 ml Droperidol inj vagy 3x1 a Demalgonil inj 3 par gumikesztyű Kodan desinfitiens 6-8 db vattabuci, amp reszelok 3 db steril 2ml-es fecskendő 3 db szerumtű, 3 db im tű vesetal papirvatta 2-3xi kotescsere 6 db steril becsilap 30 cm 20x15 cm-es Mefix csik st csipesz, 1 par st gumikesztyű vesetal papirvatta sz e 20 cm 11-es meretű ramofix

6-7-8 nap

Orvosi tevekenyseg

- 2x osztalyos orvosi vizit
- 2x foorvosi vizit
- therapia elrendelese sz e fajdalomcsillapito tbl (Demalgon vagy Algopyrin)
- beteg allapotanak sebenek figyelemmel kiserese

Noveri tevekenyseg

- segitsegadas a reggeli mosakodasnal
- viziten valo asszisztalas
- napi 1-2-3x-i kotescsere (6 db becsilap st gumikesztyü 25-30 cm 10x15cm es Mefix csik vesetal st csipesz, sz e Ramofix)
- 3x-i etkezes, etkeztetes
- 2-3x fajdalomcsillapitó adasa (Demalgon vagy Algopyrin)
- 3x homerözes
- 1x RR meres
- sz e agynemü es haloing csere
- ejjeliszekrény fertötlenitése
- beteg psyches vezetese

9 nap

Orvosi tevekenyseg

- 2x osztályos orvosi vizit
- 2x főorvosi vizit
- varratszedes
- beteg dietas tanacsokkal, eletmódra vonatkozó utasitasokkal tortenö felvilagositasa

Noveri tevekenyseg

- segedkezes reggeli mosakodasnal (sz e agynemu ill haloing csere)
- viziten valo segitsegadas
- varratszedes (1 db st anatomias csipesz 1 db st ollo 3-4 db st gezbuci kb 1-2 ml sebbenzin Plastubol spray gumikesztyü vesetal)
- 3x etkezes folyadekpotlas (tej tea)
- sz e Demalgon vagy Algopyrin tbl adasa
- 2-3x homerozes 1x RR meres
- ejjeliszekreny fertötlenitese

10 nap

Orvosi tevekenyseg

- 1x osztalyos orvosi vizit
- 1x főorvosi vizit
- korlap lezarasa, epikrizis megirasa (orvos-imok segitsegevel)

Nővéri tevekenyseg

- reggeli tisztálkodas (zuhanyzas)
- 1x-i testhő méres, RR meres
- reggeliztetés
- viziten segedkezés
-zarojentes átadasa, velemeny kerés
- agyneműcsere, fertőtlenites

		Baseline Sampling		6 1 95				
Diagnosis								
Cholecystectomy w/o Laparoscopy			Chol w Lap			Hernia Inguinale		
Length of Stay	Pre-op days		L O S	Pre-op Days		L O S	Pre-op days	
1 14	4		6	2		7	2	
2 17	5		9	5		6	2	
3 17	6		6	2		7	1	
4 13	6		7	3		10	4	
5 10	2		9	5		7	2	
6 15	7		6	2		6	1	
7 22	5		7	3		5	1	
8 15	3		5	1		8	2	
9 10	2		6	2		6	2	
10 10	2		6	3		5	1	
15 0 avg	4 2 avg		6 7 avg	2 8avg		6 7 avg	1 8 avg	

			Baseline Sampling Grid			
			Direct Expenditures only			
Diagnosis	Chol w/o lap		Chol w Lap		Hernia Inguinale	
Laboratory	1947	H U F	2312,4	H U F	1669,83	H U F
Pre-op med	42,8		155,8		37,8	
Anes sgl use items	1957,5		2157,5		1598,67	
Anes med	1545,9		4947,5		649	
Meds dur surg	3386,99		5349,8		2067	
Post-surg meds	360		60		60	
Post surg sgl use items	207,6		366,2		78,9	
Total	10 367,50		15 349,20		6 988,50	
Nursing Days	15	days	6,7	days	6,7	days
Cost/Day	691,17	H U F	2290,93	H U F	1043,06	H U F

Cholecystectomy with Laparoscopy

	Pre-Casemap	Post-Casemap
Lab	all done post admission	Preadmit work-up 2-3 days -Try to get dist dr to do
Xray	Abdominal xray done on all pts	Now prefer ultrasound ERCP if Common Bile duct stone suspected in elderly pt endoscopy only for stomach
Pharmacy	prophylaxis with 3rd gen cephalosporin	Gentamycin and ampicillin used only in inflammation
Anesthesia		No change Dipidol and Dormicum (1tab)

No 6th or 7th Day For Hospital A

Hospital B

TIMELINE	DAY 6	DAY 7
DESIRED OUTCOME	Adequate gas exchange Afebrile Tolerates Abx without Baseline activity Maintain safety Review care plan PLAN D/C IN AM	Document safe environment/adequate home support. Pulse oximeter >90% with/without O_2 VS within normal limits. Pt/SO verbalize understanding of D/C instructions.
DISCHARGE PLANNING HOME HEALTH MAINT		PLAN D/C TODAY Complete D/C PER
PATIENT ED KNOWLEDGE DEFICIT	Pulm rehab to review/instruct in MDI use	
SKIN INTEGRITY		
TESTS/ PROCEDURES	Pulse oximeter Labs PRN	Pulse oximeter Labs PRN
CONSULTS		
INEFFECTIVE BREATHING PATTERN	IV Abx with HL	Start PO Abx D/C HL
ACTIVITY INTOLERANCE POTENTIAL	UAL to baseline activity	UAL to baseline activity
ON TRACK	YES/NO RN	YES/NO RN
7 3	YES/NO	YES/NO
3 11	YES/NO	YES/NO
11 7	YES/NO	YES/NO

No 6th or 7th Day For Hospital C

EXHIBIT 3
Pneumonia

Hospital A

DAY 5
Patient will be able to maintain optimal oxygenation/ ventilation during self-care without oxygen (as per patient s normal)
NA MET VARIANCE
Repeat CXR prior to discharge
Pulmonary assessment and vital signs qShift or q8H at least

HOSPITAL B

TIMEI INF	DAY 5
DESIRED OUTCOMF	D/C O_2 if pulse oximeter >90% on RA Decision re home O_2 Tolerates IV Abx Increased activity Maintain safety Update D/C plan
DISCHARGE PLANNING HOME HEALTH MAINT	
PATIENT FD KNOWLEDGE DEFICIT	
SKIN INTEGRITY	
TESTS/ PROCEDURES	Pulse oximeter Labs PRN
CONSULTS	HHC consult if requires home O_2
INEFFECTIVE BREATHING PATTERN	IV Abx with HL Obtain order to D/C O_2 if pulse oximeter >90% on RA
ACTIVITY INTOLERANC F POTENTIAI	BRP Up to chair with meals Ambulate QID
ON TRAC K	YES/NO RN
7 1	YES/NO
3 11	YES/NO
11 7	YES/NO

NO 5TH DAY FOR HOSPITAL C

EXHIBIT 3
Pneumonia

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EXHIBIT 3
Pneumonia

Hospital A

DAY 4
Patient will demonstrate improvement in oxygenation/ ventilation with activity as evidenced by optimal resp pattern *SaO_2 etc (per patient s ormal)
NA MET VARIANCE
Pulmonary assessment and vital signs qShift if afebrile × 24H

Hospital B

TIMELINE	DAY 4
DESIRED OUTCOME	Adequate gas exchange T [illegible] IV Abx Activity increased Maintain safety HHC consult done Update D/C plan
DISCHARGE PLANNING HOME HEALTH MAINT	Complete gold form if ECF D/C
PATIENT ED KNOWLEDGE DEFICIT	
SKIN INTEGRITY	
TESTS/ PROCEDURES	Pulse oximeter BID Labs PRN
CONSULTS	
INEFFECTIVE BREATHING PATTERN	Change IV site IV Abx IVF converted to HL R/O or D/C aerosols with BPH I&O
ACTIVITY INTOLERANCE POTENTIAL	BSC/chair BID/PRN Ambulate BID
ON TRACK	YES/NO RN
7 3	YES/NO
3 11	YES/NO
11 7	YES/NO

Hospital C

	DAY 4
ASSESSMENT	
CONSULTS	ID/Pulmo [illegible] PT/OT if ADL [illegible]
TESTS	CBC w/Diff ABG PRN
TREATMENTS	[illegible] PRN [illegible] PRN [illegible] PRN
IV'S/MEDICATIONS	D/C heplock [illegible] PO antibiotics and febrile
NUTRITION	As tolerated
ADL'S	As tolerated
PATIENT/FAMILY TEACHING	Review D/C instruction
PATIENT AND FAMILY GROUP SUPPORT	
DISCHARGE PLAN/ REFERRALS	When D/C criteria met (D/C before 11 a.m.)
MULTIDISCIPLINARY CONFERENCE	

EXHIBIT 3
Pneumonia

HOSPITAL A

DAY 2
Patient will demonstrate improvement in oxygenation/ ventilation at rest (as evidenced by resp rate spot check *SaO_2 color etc)
NA MET VARIANCE
Pulmonary assessment and vital signs q4H –
Oxygen as indicated Pulse oximeter spot check per resp protocol

HOSPITAL B

TIME/ INF	DAY 2
DESIRED OUTCOME	Adequate gas exchange Tolerates up to BSC/chair with assist Maintain safety
DISCHARGE PLANNING HOME HEALTH MAINT	Review H&I D/C screens consult Social Work if indicated Obtain order/place PT/OT consults if needed
PATIENT ED KNOWLEDGE DEFICIT	Complete DM PER if patient has DM Schedule DM education if needed
SKIN INTEGRITY	Screen for Skin Team consult
TESTS/ PROCEDURES	Labs PRN Pulse oximeter BID
CONSULTS	Consult dietician if altered nutrition
INEFFECTIVE BREATHING PATTERN	IVF with IV Abx O2 Aerosols with BPH I&O
ACTIVITY INTOLERANC F POTENTIAL	Up to chair/BSC BID
ON TRAC K	YES/NO RN
7 3	YES/NO
3 11	YES/NO
11 7	YES/NO

DAY 2 →

ASSESSMENT HOSPITAL C	q4 until temp < 99 x 24 then q 8 to assess need for O_2
CONSULTS	ID/pulmonary for poor or no response --- - > -persistent fever persistent or worstened respiratory distress -climbing WBC Notify SW 24 in advance of DC date for Nursing Home Resident
TESTS	- - ------- - - > CBC w/ diff ABG PRN ---------- --- ->
TREATMENTS	O_2 PRN ----- --- -> S CT PRN ----- - --> Suction PRN -- >
IV'S/MEDICATIONS	D/C IV fluids when changed to PO meds and taking PO fluids Change to PO antibiotics if afebrile x 24° with absence of antipyretics --------- -- >
NUTRITION	Diet As Tolerated -> CONSIDER ENTERAL F/C BM D C U S ELI THERAPY ------ -- - ->
ADL'S	---------- - > BEDREST - ADU AWC As Tolerated
PATIENT/FAMILY TEACHING	reinforce teaching
PATIENT AND FAMILY GROUP SUPPORT	
DISCHARGE PLAN	

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PNEUMONIA

Hospital A ↓

DAY 1 A
Patient will have appropriate treatments initiated to improve oxygenation and ventilation as indicated O_2 Resp treatment SaO_2 monitoring
NA MET VARIANCE
DATE
INITIAL
Pulmonary Assessment CXR Sputum C&S per Respiratory Protocol ABGs O_2 Resp treatment SaO_2 monitoring as indicated Vital signs every 4 hours
Chest physiotherapy (CPT) as indicated Oxygen as indicated Pulse oximeter spot check per resp protocol

Hospital B

TIMELINE	DAY 1
DESIRED OUTCOME	Adequate gas exchange ($PSAO_2$ > 90%) Assess baseline activity Maintain safety Start D/C plan
DISCHARGE PLANNING HOME HEALTH MAINT	Identify caregiver Identify complex D/C Assess and document baseline mobility and self-care ability
PATIENT ED KNOWLEDGE DEFICIT	ID learning needs of pt/SO Instruct Pt/SO re sputum specimens
SKIN INTEGRITY	Assess integrity
TESTS/ PROCEDURES	BW ABG CXR EKG Sputum GS/C&S UA C&S BC X2 Pulse oximeter
CONSULTS	
INEFFECTIVE BREATHING PATTERN	Start IV Abx ASAP after cultures O_2 Aerosols BPH IVF I&O
ACTIVITY INTOLERANCE POTENTIAL	Bedrest HOB > 45° Implement HBI Falls Prevention Protocol
ON TRACK	YES/NO RN
7 1	YES/NO
3 11	YES/NO
11 7	YES/NO

Hospital C	DAY OF ADMISSION ED - 90 MIN	H/S FLOOR AICU ADMISSION CRITERIA	DAY 1
ASSESSMENT	H & P ---------->	VS q4° including temp --- -- >	- >
	Weight	--- - -- - -- --- >	
	Pulse [illegible]	prn - -- ----- ->	-- - - - - >
	Obtain past medical records		
CONSULTS	Respiratory Care as needed for sputum induction Notify admitting resident Social work for nursing home residents	Respiratory therapy -chest pt evaluation Speech Therapy if aspiration suspected	
TESTS	SMA 20 CBC with diff CXR Sputum-gm stain C&S Mycoplasma IgM age < 40 and unrevealing gm stain blood cultures x 2 ABG prn -- -- -->	- - - --- --- >	CBC with diff - >
TREATMENTS	O_2prn -- --- - -- - ->	- - -- ----- -- >	- -- - --- >
	CPT prn - - >	- - - - >	-- - >
	suction prn -- >	- - -- >	>
IV'S/MEDICATIONS	IV/HL maintenance >	- -- -- - >	- - >
	hydration prn - - >	- - - -- - >	D/C when po hydration adequate
	antibiotics per criteria - >	IV antibiotics - >	- >
			Select appropriate ATB's based on sensitivity testing >
NUTRITION	Diet as tolerated --->	- - ---- ---------->	----- - - -- - >
	NPO if suspected aspiration - ------ >	-- - - ---------->	Consider enteral/po based on speech therapy evaluation - -- >
ADL'S	Bedrest ----- ------ >	Advance as tolerated >	-- - - >
PATIENT/FAMILY TEACHING			S/S Infection --- CPT - -- - -- Medications - --
PATIENT AND FAMILY GROUP SUPPORT	CSA makes contact with family Initiates psychosocial		

EXHIBIT 3 Pneumonia

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Clinical Pathway Data Collection Sheet (Variance Reporting Document)

LOCAL RECORD # _____ PHYSICIAN I.D _____ EXPECTED LOS (days) _____

ADMISSION DATE _____ (MM/DD/YY) DISCHARGE DATE _____ (MM/DD/YY) ACTUAL LOS (days) _____

ADDRESSOGRAPH

DATE	CP DAY	CODE 1	VARIANCE DESCRIPTION	CODE 2	CAUSE DESCRIPTION	ACTION TAKEN	INITIALS

[illegible] PATIENT PROBLEMS NOT PREVIOUSLY ADDRESSED _____

SYSTEM PROBLEMS WHICH DATA COLLECTION HAS EXPOSED _____

VARIANCE CODE 1
- A NOT DONE
- B DONE EARLY
- C DONE LATE
- D SUBSTITUTE
- E NOT DOCUMENTED
- F OTHER
  - [illegible]

VARIANCE CAUSE CODE 2

SYSTEM
- S1 NO NH OR REHAB BED AVAILABLE
- S2 INSURANCE DOES NOT COVER HOME CARE/SUPPLIES
- S3 INTERNAL BED NOT AVAILABLE FOR TRANSFER
- S4 UNABLE TO SCHEDULE TEST/PROCEDURE WITH DEPARTMENT
- S5 OR TIME NOT AVAILABLE
- S6 TEST/PROCEDURE RESULTS NOT AVAILABLE
- S9 OTHER (SPECIFY)

CLINICIAN
- C1 RESPONSE TIME
- C2 CONSENSUS NEED AMONGST CONSULTANTS BEFORE DISCHARGE
- C3 TIME ORDER WRITTEN
- C4 DISCHARGE PRESCRIPTIONS NOT WRITTEN
- C5 NOT DOCUMENTED
- C6 CONSENSUS NEED AMONGST TEAM
- C9 OTHER (SPECIFY)

PATIENT/FAMILY
- P1 PATIENT CONDITION OR COMPLICATION
- P2 UNABLE TO RETURN TO PREADMISSION ENVIRONMENT
- P3 NOT INDICATED FOR PATIENT
- P4 UNABLE TO LEARN SKILLS NEED FOR HOME CARE
- P5 INADEQUATE SOCIAL SUPPORT OR ASSISTANCE AT HOME
- P6 LACK OF TRANSPORTATION HOME
- P9 OTHER (SPECIFY)

EXHIBIT 4

EXHIBIT 5

MEASUREMENT OF CHANGE IN COST FACTORS

DIAGNOSIS _____

Date started _____ 19 ____

Date completed _____ 19 ____

Pre-Casemap ACTUAL	Factors	Post Casemap EXPECTED	Post Casemap ACTUAL
_____	Laboratory	_____	_____
_____	Roentgen examinations	_____	_____
_____	Pharmaceuticals	_____	_____
	Special procedures		
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	Supplies	_____	_____
_____	Nursing __days x $___	_____	_____
_____	Length of Stay	_____	_____
_____	Average hours between Consult Referral & Exam	_____	_____

EXHIBIT 5

Data Collection Form

CASE MAP - CHOLECYSTECTOMY w/Lap	EXPECTED	EXCEPTION
Patient I D		
Physician I D		
KEY DATA ELEMENTS		
Admission Date		
Surgery Date		
Discharge Date		
Acquired Infection		
Date of prior admission		
Co-morbidities		
Complications		
Discharge Needs (check item(s) that apply		
No Home		
Home		
Attendant		
Outpatient care		
Call Back		
Home Health Care		
Expired		
List Five Highest Cost Items or Services Provided		
Drug utilization varies from Case Map Comment		
Diagnostics exceeded Case Map Comments		
Other Comments		

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