

Alumni Conference 'Good practices' presentation



UNIVERSITAS GADJAH MADA

Hospital Information System Implementation

EKA HOSPITAL

JAKARTA– INDONESIA

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Yogyakarta 27th of June 2014



Background and Objectives

Background

- ❑ Eka Hospital is one of few Hospitals in Indonesia which has been using Electronic Medical Record (EMR). This project is to get better services to patients based on JCI standard.
- ❑ To continue improve the quality of data & to get an up-to-date information that required by Eka Hospital Management.
- ❑ To create a robust and easy tools for the users (i.e. admissions, nurses, doctors, cashier etc.)
- ❑ To improve the quality of employees works.

Objectives

- ❑ Actively improves the system' functions to get an easy use application system for users.
- ❑ Actively in doing new technology research to get an up to date technology in programming and system design.
- ❑ Regularly do the survey to get users' satisfaction after implementation the system.
- ❑ Regularly do an internal system's audit to get information: Does the system is used correctly by the users?
- ❑ Actively to have discussion with the users (inter units) to get better understanding what kind of information is needed,

Background and Objectives- cond.

- **Electronic Medical records (EMR):**

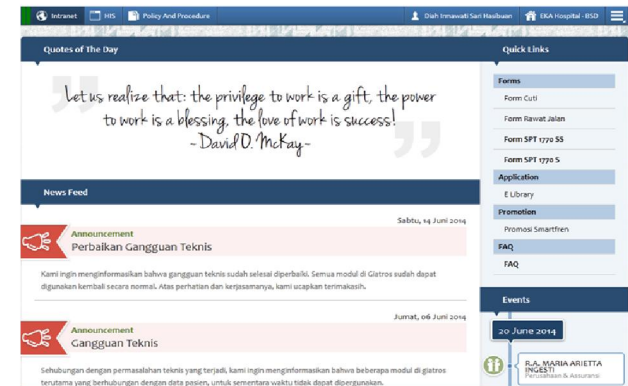
A collection of patients medical data that produced by electronic system. Then, this information would be shared and used by inter health care units.

- **Hospital Information System (HIS):**

An application system that used by all operational units together (i.e. admission, nurse, doctor, diagnostic support staff, cashier, HR&D staff, purchase staff, etc.) to manage their work and to get an integrated information.

Project Description

- ❑ Eka Hospitals already have many desktop application systems which are not integrated from one application to the other applications.
- ❑ The company bought a web based Hospital Information Systems. However, it is still not able to give a complete information required by management.
- ❑ A complete IT team is created which the members have variety knowledge backgrounds.
- ❑ Standard reports are produced and it can be used by Management to help them make decision for both Hospitals.



Project Description

- Intranet and Internet:

Is a computer network that uses internet protocol technology (such as http:) to be able to communicate (i.e. to share information) within organization.

Appointment Confirmation List

Appointment Date

11-06-2014

150

Unconfirmed

Doctor Name

89

Confirm





























Appointment Status

All





















1

Conflicted

Total App. : 240

No.	Phone No.	PRN	Patient Name	Doctor Name	Time	Payment	Action
27	02175874682; 08128157349	00018504	MR MEDI MADAUN	ARIANI ERNIN SUTANTO Drg	19:00 (10)	SELF PAID	   
28	021-5986246	00252330	MS TJIT NIO	ARIANI ERNIN SUTANTO Drg	19:30 (11)	SELF PAID	   
29	081381913477; 08128810562	00101363	MS LILIS ROSTIANA	AUDHY TANASAL,SpS	10:00 (1)	-	 QUEUED
30	021; 081286188711	00288611	MS DEVI YOVINTA	BARUCH DJAJA, SP.OG	08:00 (1)	INSURANCE	 QUEUED
31	02197767217	P-00037018	MS SITI CUNASIH	BARUCH DJAJA, SP.OG	10:30 (11)	INSURANCE	   
32	081287478912	00250757	MS MURNIATY LUBIS	BARUCH DJAJA, SP.OG	11:30 (15)	SELF PAID	   
33	02198645826; 081380216879	00229086	MS DWI PUSPITA SARI	BUDI SANTOSO SpOG FMAS*	08:00 (1)	INSURANCE	 QUEUED
34	021-7566056; 087880825931	00071375	MS LISYE	BUDI SANTOSO SpOG FMAS*	10:00 (13)	INSURANCE	 QUEUED
35	021	-	SHEDY	BUDI SANTOSO SpOG FMAS*	10:40 (17)	-	   
36	0215207544; 0816872594	00299169	MS JATY ROSMIATY	BUDI SANTOSO SpOG FMAS*	11:20 (21)	INSURANCE	   
37	021; 081311236423	00327307	MS EDITH AMANDA	BUDI SANTOSO SpOG FMAS*	11:30 (22)	SELF PAID	

Registration

Add Registration		Manage Registration						
Date of Birth (dd-mm-yyyy)	Patient Name	PRN	Doctor Name					
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>					
<input type="button" value="Search"/> <input type="button" value="Reset"/>								
PRN	Patient Name	DOB	Doctor Name	Time	Type	Status	Last Questionnaire	Action
00003295	MR BUDI HARTONO DJAJAPRAWIRA	25-MAR-1958	ALEXANDER BRYAN, DRG	08:30 (1)	APPOINTMENT	REGISTERED		 
00003295	MR BUDI HARTONO DJAJAPRAWIRA	25-MAR-1958	ALEXANDER BRYAN, DRG	09:00 (2)	APPOINTMENT	REGISTERED		 
00001673	MS DWI PENTA OKTAVIA	05-OCT-1988	ALEXANDER BRYAN, DRG	09:30 (3)	APPOINTMENT	REGISTERED		 
00104897	MS FANNY SUGIANTO	20-SEP-1983	ALEXANDER BRYAN, DRG	10:30 (5)	APPOINTMENT	REGISTERED		 
00303828	MR MARKUS IHLENFELD	11-JAN-1970	ALEXANDER BRYAN, DRG	11:30 (7)	APPOINTMENT	REGISTERED		 
00101363	MS LILIS ROSTIANA	20-NOV-1970	DR AUDHY T, SP5	10:00 (1)	APPOINTMENT	REGISTERED		 
00288611	MS DEVI YOVINTA	20-FEB-1989	DR BARUCH D, SP.OG	08:00 (1)	APPOINTMENT	REGISTERED		 
00008726	MS DEWI SANTI RIANA	09-NOV-1975	DR BARUCH D, SP.OG	08:45 (4)	WALK IN	REGISTERED	10-Oct-2012	 
00040317	MS SITI CUNASIH	01-FEB-1978	DR BARUCH D, SP.OG	09:30 (7)	WALK IN	REGISTERED	07-Mar-2013	 
00166274	MS AILEEN TANNIA	09-AUG-1982	DR BARUCH D, SP.OG	10:45 (12)	WALK IN	REGISTERED		 

Results and Lessons Learned

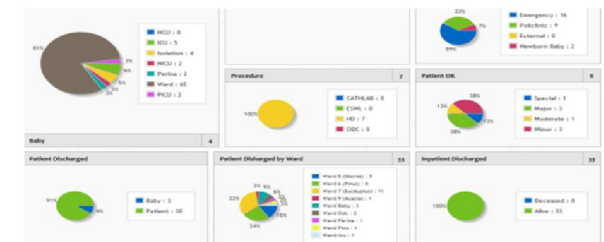
Results

- ❑ Users start to use web-base application system and they are satisfied. However, it is still a lot of effort to use the new system.
- ❑ The new application is able to reduce work and effort time consuming up to more than 50%.
- ❑ The new application is able to produce data and reports that can be understand and use together between units.
- ❑ The new application is able to give continue information from front-liner staff to the management quickly without manual intervention.

Appointment Confirmation List

Appointment Date: 122 Unconfirmed
Doctor Name: 159 Confirmed
Appointment Status: All 2 Confirmed Total App: 143

No.	Phone No.	PIDN	Patient Name	Doctor Name	Type	Payment	Action
81	08191040401010101010	0000000	MS RYAS YEPTEPERA S.A.	DEWI KATHI HENDANITO PUTRI, SpOG	1419 (1)	SELF FIND	[Icons]
81	08191040401010101010	0000000	MS RIKI ANGGAIRI	DEWI KATHI HENDANITO PUTRI, SpOG	1419 (1)	-	[Icons]
81	08191040401010101010	0000000	MS HENDAS SETIHWATI	DEWI KATHI HENDANITO PUTRI, SpOG	1419 (1)	INSURANCE	[Icons]
84	08191040401010101010	0000000	MS BERNADOT MULANILARI	DEWI KATHI HENDANITO PUTRI, SpOG	1419 (1)	INSURANCE	[Icons]
85	081	-	MALDIA YUNI	DEWI KATHI HENDANITO PUTRI, SpOG	1419 (1)	-	[Icons]
86	08191040401010101010	0000000	MS IRI SUTIRAH	DEWI KATHI HENDANITO PUTRI, SpOG	1419 (1)	INSURANCE	[Icons]
87	08191040401010101010	0000000	MS FERBA	DEWI KATHI HENDANITO PUTRI, SpOG	1419 (1)	INSURANCE	[Icons]
88	08191040401010101010	0000000	MS EVANIA TEEANASARI	DEWI KATHI HENDANITO PUTRI, SpOG	1419 (1)	SELF FIND	[Icons]
89	08191040401010101010	0000000	MS ENI	DEWI KATHI HENDANITO PUTRI, SpOG	1419 (1)	SELF FIND	[Icons]



Results and Lessons Learned

Queue

List of Patient

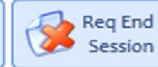
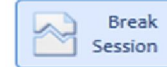
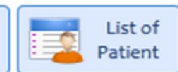
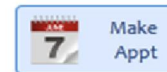
Schedule

Session :

2 (16:00 - 18:30)

Next

Q#	PRN	Name	Reg.	Slot	Status
3	00002456	MS VIVIE	14:23	16:30	CALLED
6	00002458	MS YULIA	14:27	17:15	REGISTERED
1	00002513	MISS TRALALA TRILILI	14:23	16:00	SKIPPED
7	00002278	MISS LINDA CHRISTINE	14:28	17:30	REGISTERED
8	00002268	MISS AYU HUTAGALUNG	14:30	17:45	REGISTERED



Questionnaire

No questionnaire data

Internal Medicine

MOHAMMAD JAUHARSYAH HIDAYAT

Wait for 0 Patient
Entry Time 15:00 (0h4m)
Queue No. 5

PINGKAN PALINGAN, SPA

Wait for Full
Entry Time
Queue No.

Results and Lessons Learned

Lesson Learned

- ❑ By using a web base application the users become more care about their works and their quality of works.
- ❑ Garbage IN, Garbage OUT.
- ❑ Many users care about their works only. Sometimes, they do not understand the whole flow of the business process within the unit.
- ❑ Many units are required to review their flow of works and the rules (SOP).
- ❑ Training and re-training is absolutely required.



Team and Stakeholders

Team

- ☐ IT Development team
- ☐ CEO, all BOD, all Manager, all Department Heads, Doctors, Nurses and Office Staff.



Stakeholder

- ☐ Local government
- ☐ Employees
- ☐ Business Owner
- ☐ Patients

Promoting and Hindering factors

Promoting Factor

- ❑ Effective communication among staff between units.
- ❑ A lot of supporting given by Management.



Hindering factors

- ❑ In some case lack of transparency.
- ❑ Lack of awareness towards quality policy & procedures.
- ❑ Some users are reject to use the applications.

Sustainability and Transferability

Sustainability

- ❑ Continuous improvement in development system is required to satisfied the patients. It can build a good relationship between Hospital and Customers by offering an easy access to get the Hospital program information and the services.
- ❑ By using Integrated Hospital Information System, the patient gets certainly information from EkaHospitals.

Transferability

- ❑ EMR has support the operational functions to give better services to Patients.
- ❑ A complete EMR implementation at Eka Hospital has been as a reference for other hospitals in Jakarta.

