Open Source GTI Practice Management & WorldVistA Prospects in Indian Hospitals



Rohit Kumar USA (Mobile): +1-408-455-4274 rohit@gtiinfotel.com

GTI



Contents

- GTI Practice Management Suite for WorldVistA
- Functionalities:
 - Out Patient (Ambulatory) with Appointment
 - In Patient (ADT)
- Other Implementations by GTI
 - 12 Large Super specialty hospitals of Delhi Government catering to 8,000,000 patients per year
 - Rajiv Gandhi Cancer Institute Bed Management System implementation
 - BI/DW Tool for VistA for US using KB_SQL & Crystal Reports
- Healthcare Industry:
 - India
 - Key Indexes by Ernest & Young
 - Market size & Potential
 - Infrastructure
 - Healthcare IT Market size
- VistA Positioning, Prospects & Concerns
 - Target Segment
 - Challenges & Solution



GTI Practice Management of WorldVistA EHR

- We believe that the Practice Management Suite for WorldVistA EHR is one of the key elements that any hospital or user require to start using VistA.
- At GTI it has always been a part of our vision to offer our suite of products as open source to contribute to the VistA community & get more number of hospitals to start using and taking the benefits of VistA.
- Source code available on OSEHRA & Source Forge





GTI PM Package: OP (Ambulatory) with Appointments

- 1. Registration with first Visit
- 2. Edit Patient Demography
- 3. View Patient Demography
- 4. Print Patient Demography
- 5. Create New Visit (COPD Casual OPD)
- 6. Edit Visit
- 7. View Visit
- 8. Print Visit
- 9. Search with Patient Details
- 10. Advance Search with Visit Details
- **11.List Out Patients**
- 12.List out Visits for a Patient
- 13. Book Appointment for Particular Clinic with Token Number
- 14.List out Appointments for a Patient
- 15. Make Visit (FOPD Follow up OPD) from Appointment
- 16.Cancel the Appointment
- 17. Make No-Show the Appointment
- 18.Create OPD Card for FOPD
- 19.List out FOPD based on Speciality, Clinic and Date (can do FOPD, Cancel, No-Show, OPD Card from here also)
- 20.List out FOPD Patient Report based on Speciality, Clinic and Date Range
- 21.List out FOPD Appointment Report based on Speciality, Clinic and Date Range
- 22.List out FOPD Census Report based on Date Range
- 23.eMLC: electronic Medico Legal Cases record



GTI PM Package: In Patient functionalities

- 1. Admitting Patient
- 2. Edit Admission
- 3. View and Print Admission Details
- 4. Admission Face sheet and print
- 5. Transfer Patient to Another Ward with changing Speciality and Providers
- 6. Bed Switch within the ward
- 7. View and Print Transfer Details
- 8. Discharge the Patient with Normal or Abscond
- 9. View and Print Discharge Details
- 10.Discharge Face sheet and print
- 11. Abscond Report and print
- 12.List out Admission based on Record Number
- 13.List out Transfer based on Record Number
- 14.List out Discharge based on Record Number
- 15.List out Patient based on Admission Date range and others (Report Downloadable in Excel format)
- 16.List out Patient based on Discharge Date range and Discharge Type (Report Downloadable in Excel format)
- 17.eMLC: electronic Medico Legal Cases record



Menu







Jai Prakash Narayan Apex Trauma Center



GTI Infotel

Register Ne	w Patient				Patient Vis	it Details	
First Name	*	Patient	Type 🔘 EHS no.	CGHS no.	Visit No	1	
Date of Birth	*		Relationship	Select	Consultant Name	DEEPAK AGRAWAL	[
Age	*		EHS no.		Attended By (Resident)	.	
Sex	* Select	Ţ	CGHS no.		MLC Case	No	[
Religion	HINDU	Email			Mode of Inj	ASSAM	
Nationality	INDIAN	Remark	No		Criticality	BIHAR CHANDIGARH	
Passport No			- -		Treating Fac	CHHATTISGARH DADRA AND NAGAR HAVELI	
Expiry.Date					Refered By (Doctor/Hos	DAMAN AND DIU DELHI	
						GOA GUJARAT	
Local Addr	ess or Next of Kin addres	s Perma	nent Address		Brought By [HARYANA HIMACHAL PRADESH	
Name		Name			Brought by	JAMMU AND KASHMIR JHARKHAND	
Address		Address I	.ine1		Name	KERALA	
Address		Address I	.ine2		Address Line1	MADHYA PRADESH MAHARASHTRA	
Line2 City		City			Address Line2	MANIPUR MEGHALAYA	
State		State	DELHI	▼ Pin	State	DELHI	[
District		District			District		
Country		Country	INDIA		Country	INDIA	
Phone No.		Phone No			Phone Number		_
	+91	Mobile No	+91		Mobile	+91	
MODILE NO.							
	Permanent Address is same Address	as Local					
	Address	as Local					

Search

Sector Cool Mana(CO) Part Name Cool Mana(CO) Last Name Sake Sector Sake Sector Sake Sector Babict Part Name Debrict Part Name Debrict Part Name Address Reg To Date Time 0 @ Reg To Date Time 0 @ Issech, please nake fields conduction with TC Nucleor or Last Name. Debrict Issech, please nake fields conduction with TC Nucleor or Last Name. Debrict Issech, please nake fields conduction with TC Nucleor or Last Name. Debrict Issech, please nake fields conduction with TC Nucleor or Last Name. Debrict Issech, please nake fields conduction with TC Nucleor or Last Name. Debrict Issech, please nake fields conduction with TC Nucleor or Last Name. Debrict Issech, please nake fields conduction with TC Nucleor or Last Name. Debrict Issech, please nake fields conduction with TC Nucleor or Last Name. Debrict Issech, please name Book Debrict Issech, please name Debrict Debrict Issech, please name Debrict Debrict			_			_	Welcome MO	HAN SINGH	-	Logout				
General Demographic C N Pir Name Local Maine(C/O) Outry - Select - Sex - Select - Base Reg from Dale Time 0 Adersin Bise combination with TC Number or Last Name. Issue make fields combination with TC Number or Last Name. Reg from bise combination with TC Number or Last Name. Issue make fields combination with TC Number or Last Name. Reg from bise make fields combination with TC Number or Last Name. Issue make fields combination with TC Number or Last Name. Reg from bise make fields combination with TC Number or Last Name. Issue make fields combination with TC Number or Last Name. Reg from bise make fields combination with TC Number or Last Name. Issue make fields combination with TC Number or Last Name. Reg from bise make fields combination with TC Number or Last Name. Issue make fields combination with TC Number or Last Name. Reg from bise make fields combination with TC Number or Last Name. Issue make fields combination with TC Number or Last Name. Reg from bise make fields combination with TC Number or Last Name. Issue make fields combination with TC Number or Last Name. Reg from bise make fields combination with TC Number or Last Name. Issue make fields combination with TC Number or Last Name. Reg from bise make fields combination with TC Number or Last Name. Issue make fields combination with TC Number or Last Name. Reg from bise make fields combination with TC Number or Last Name.	vt													
TC NO Pirt Name Local Name(CO) Sex Sex <th>General Der</th> <th>nographic</th> <th></th> <th></th> <th></th> <th></th> <th>Local Address</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	General Der	nographic					Local Address							
Pirtt Nome Latt Nome Sixe Solect - Sixe Solect - District Bitrict Bitrict Bitrict Address LocalPromonent Procentiate fields coebination with TC Number or Last Name. Search Registration Rodel Weicone Marker Search Piest Back Search Registration Rodel Weicone Multice Search Patient Vait Date rom Dispective Vait Date rom Dispective Weicone Multice Search Patient Multice Search Patient Multice Search Patient Multice Search Patient Multice Top Dispective Search Piest Back Registration Rodel Weit Date rom Dispective Vait Date rom Dispective Search Piest Back Registration Rodel Weitow Multice Search Patient Vait Date rom Dispective Search Piest Piest Vait Date rom Dis	TC NO						Local Name(C/O)							
Last Name State Social Debicit Age From Date The O O O Reg. Trom Date The O O O Local Premanent PhoneMiddle No. I search, please make fields combination with TC Number or Last Name. Search Reset Back	First Name						Country	Select	×					
Sex -Select- Age From To Reg From Dele Time Reg To Dele Time Time Image Sector	Last Name						State	Select	×					
Age From the owner of Lest Name. Search please make fields combination with TC Namber or Lest Name. Search Reset Back Reset Back Reset Combination with TC Namber or Lest Name. Reset Back Reset Back Reset Back Reset Back Reset Combination With TC Namber or Lest Name. Reset Back Reset Back Reset Back Reset Back Reset Back Reset	Sex	Select		_	Y		District							
It registration Gene Reg To Date Time 0 Local/Permanent PhoneMobile No. It search, please make fields combination with TC Number or Last Name. Search Reset Back Registration Model Welcome MOHAN SINGH Visit Date From 01/09/2013 Time 0 Visit Date To 01/09/2013 Time 0 Nucl Yes Nucl Visit Date To 01/09/2013 Time 0 Nucl Yes Nucl Prought By Select Brought By Select Brought By Select	Age From			0	100		Pin Code							
tearch, piesse make fields combination with TC Number or Last Name. Learch Piesse make fields combination with TC Number or Last Name. Learch Reset Back Learch Reset Back Learch Reset Back Learch Reset Control Intervention Control Inte	Reg To Cate			0			Address							
I search, please male fields combination with TC Number or List Name. Search Reset Back Reset Back Reset	Reg. to Date		10	0			Local/Permanent							
Advance Search Patient Brought By Details Visit Date From 01/09/2013 Visit Date To 01/09/2013 Visit Date To 01/09/2013 MLC Yes Criticality Select Brought By Select Name Address	st search, please make	fields combination v	with TC Nur	nber or L Se	ast Name.	Reset	PhoneMobile No. Back		D- stA	and a	jai Ap	Prakash N Dex Trauma	larayan Center	
Visit Date From 01/09/2013 Time 0 Visit Date To 01/09/2013 Time 23 MLC Yes Criticality Select Brought By Select Name Address []	st search, please make	fields combination w	with TC Nur	nber or L	Last Name. Earch	Reset	PhoneMobile No. Back	Registration Module	StA sta	and and a	jaj Ap	Prakash N Dex Jrauma Welcome MC	larayan Center	
Visit Date To 01/09/2013 Time 23 Time	st search, piease make	fields combination w	with TC Nur	nber or L Se	ast Name.	Reset	PhoneMobile No. Back	Registration Module Advance Search Patient	StA	Brought By Details	Jai	Prakash N Dex Trauma Welcome MC	larayan Center	
MLCYesCriticalitySelectBrought BySelectNameIAddressI	st search, please make	fields combination v	with TC Nur	nber or L Se	Jast Name.	Reset	PhoneMobile No. Back	Registration Module Advance Search Patient	StA wide EHR	Brought By Details Visit Date From	Jaj Ap	Prakash N Dex Trauma Welcome MC	larayan Center	
CriticalitySelectBrought BySelectNameAddress	st search, please make	fields combination v	with TC Nur	nber or L Se	Last Name.	Reset	PhoneMobile No. Back	Registration Module Advance Search Patient	StA NIGO EHR	Brought By Details Visit Date From Visit Date To	01/09/2013 01/09/2013	Velcome MC	larayan Center	
Brought By Select Name Address	st search, piease make	fields combination v	with TC Nur	nber or L	ast Name.	Reset	PhoneMobile No. Back	Registration Module Advance Search Patient	StA wide EMR	Brought By Details Visit Date From Visit Date To MLC	01/09/2013 01/09/2013 Yes	Velcome MC	larayan Center HAN SINGH	
Name Address	st search, please make	fields combination w	with TC Nur	nber or L	Last Name. Parch	Reset	PhoneMobile No.	Registration Module Advance Search Patient	StA side EHR	Brought By Details Visit Date From Visit Date To MLC Criticality	01/09/2013 01/09/2013 Ves Select	Velcome MC	larayan Center HAN SINGH	
Provide Data	st search, please make	fields combination v	with TC Nur	nber or L	Last Name.	Reset	PhoneMobile No. Back	Registration Module Advance Search Patient	D StA NIGO EHR	Brought By Details Visit Date From Visit Date To MLC Criticality Brought By	01/09/2013 01/09/2013 Yes Select Select	Velcome MC	larayan Center HAN SINGH	
Mobile/Phone No	st search, please make	fields combination v	with TC Nur	nber or L	Jast Name.	Reset	PhoneMobile No. Back	Registration Module Advance Search Patient	StA NIGO EHR	Brought By Details Visit Date From Visit Date To MLC Criticality Brought By Name Address	01/09/2013 01/09/2013 01/09/2013 Yes Select Select	Velcome MC	larayan Center	
	st search, please make	fields combination w	with TC Nur	nber or L	Last Name.	Reset	PhoneMobile No.	Registration Module Advance Search Patient	StA side EHR	Brought By Details Visit Date From Visit Date To MLC Criticality	01/09/2013 01/09/2013 Yes Select	Velcome MC	larayan Center HAN SINGH	

Search Result

	GT		EHR	-un			1	ai Prak Apex Tra	ash i auma	Naray a Cen	an ter		-
Practice M	lanagement So	ftware		_	_	_				w	elcome	MOHAN SINGH	
TC.NO	first Name	Last Name	Reg. Date/Time	DOB	Age	Sex	L.Mobile	P.Mobile	Brought By	Father(C/o)	Visits	L. Address Line1	L. Adv
0 347780	GUPTA	DR PRIYANKA		JAN 01, 1987	26	м		8585969810			0		
0 347781	KATRINA	BHASKAR	JAN 09, 2013 09:24:10	JAN 01, 2008	5	F	9540378495	9540378495	RELATIVE	TEJA RAM	7	124A WARD NO2	ME
0 347782	AKANSHI	AKANSHI	JAN 09, 2013 09:37:09	JAN 01, 2008	5	F	9891527897	9891527897	POLICE	JAI PRAKASH	2	SALOON NEAR SIDHARTH GARDEN	60 FO- JA
0 347783	MEERA	DHOTE	JAN 09, 2013 09:40:50	JAN 01, 1968	45	F			RELATIVE	MUKUND DHOTE	2	TYPE -III /307 A V NAGAR	t.
0 347784	RAJENDER	YADAV	JAN 09, 2013 09:46:36	JAN 01, 1959	54	м	9654051488	9654051488	POLICE	RAMA YADAV	4	114 JHARERA VILL	
0 347785	ASHOK	KUMAR	JAN 09, 2013 09:49:57	JAN 01, 1970	43	м	9266662061	9266662061	RELATIVE	UMRAO	1	VILL-RAM PUR	
O 347786	ANGOORI	DEVI	JAN 09, 2013 09:55:04	JAN 01, 1954	59	м	9654102153	9654102153	RELATIVE	SUBEY SINGH	8	16/469 TRILOK PURI	
0 347787	MANISH	SHARMA	JAN 09, 2013 10:07:39	JAN 01, 1996	17	м	9456000823	9456000823	CATS	SATISH	1	VILL-HKAIRPUR	P 0- S
0 347788	MUSKAN	KUMARI	JAN 09, 2013 10:12:21	JAN 01, 2011	2	F	9650059828	9650059828	CATS	RAJESH PRASHAD	3	PATNA	
0 347789	DAYAWANTI	DAYAWANTI	JAN 09, 2013 10:16:10	JAN 01, 1971	42	F	9911191696	9911191696	RELATIVE	RAMESH CHANDER SAINI	3	27/18 FRIENDS COLONY	
			Create Visit	Make Appointment	Edit	/ View	List of Visit	List of Appointme	nts Print I	Preview	Back		
												Copyright @ 201	12, Jai Pra



Patient Form/View

N		Welcome MOHAN	SINGH Log
mographic			
TC NO:	347781		
"347781"		Registration Date/Time: Criticality: Treating Facility:	JAN 09, 2013 09:24:10
First Name:	KATRINA	Mode of Injury:	
Last Name:	BHASKAR	Faculty:	EHC
Sex:	FEMALE	Facienci Type:	22075
Age:	5	Lino Attended Buy	32075
s/o:	TEJA RAM	Attenued by:	
Email Id:		Brought By.	
Local Address:	124A WARD NO2	Rei by:	1244 WADD NO2
	MEHRAULI	Permanent Address:	124A WARD NO2
	NEW DELHI		MERRAULI
	INDIA		NEW DELHI
Local Ph No:		Demonstration and the second	INDIA
Local Mob No:	9540378495	Permanent Ph No:	
		Permanent Mob No:	9540378495



Make Appointment

		stA	and a	Jai Pi Apex	rakash Narayan Trauma Center			
OPD Appo	ointment			1	Welcome MOHAN SINGH		Logout	
	Speciality OPD Clinic	General Surg	gery 💌	Book OPD Appoin	tment after © Weeks Number of Weeks Number of months	O Months		
No.	Day		Date	From	То	Remar	ks	*
1	WEDNESD	AY	16 JAN,2013	9:00 AM	1:00 PM			
2	SATURD	AY	19 JAN,2013	9:00 AM	1:00 PM			
3	WEDNESD	AY	23 JAN,2013	9:00 AM	1:00 PM			
4	WEDNESD	AY	30 JAN,2013	9:00 AM	1:00 PM			
5	SATURD	AY	02 FEB,2013	9:00 AM	1:00 PM			
6	WEDNESD	AY	06 FEB,2013	9:00 AM	1:00 PM			-
							+	
No.		From		Status	TC Number	Patient	Name	•
1		9:00 AM		Booked	335354	SATVIR		
2		9:02 AM		Booked	264545	RAJIKU	MAR	
3		9:04 AM		Booked	346172	NIKHIL N	IIKHIL	
4		9:06 AM		Booked	326165	CHARANJEET O	HARANJEET	
5		9:08 AM		Booked	337328	DEEPTIC	EEPTI	
6		9:10 AM		Booked	335597	RAM N	AYA	
								*



Appointment List

		1 Ale	Jai Prakash N Apex Trauma	larayan Center	
Appointm	ent LIST		Welcome MO	HAN SINGH	Logout
	TC Numbe	an: 347195			
	Date/Time	Clinic	Status	Token No	Diagnosis
0	JAN 05, 2013 09:00	OPD DEEPAK AGRAWAL	CANCELLED BY PATIENT	1	
0	JAN 05, 2013 09:02	OPD DEEPAK AGRAWAL	CANCELLED BY PATIENT	2	
0	JAN 05, 2013 09:04	OPD DEEPAK AGRAWAL	CHECKED IN	3	
0	JAN 05, 2013 09:06	OPD DEEPAK AGRAWAL	CANCELLED BY PATIENT	4	
0	JAN 05, 2013 09:08	OPD DEEPAK AGRAWAL	ND-SHOW	5	
0	JAN 05, 2013 09:10	OPD DEEPAK AGRAWAL	CHECKED IN	6	
0	JAN 05, 2013 09:12	OPD DEEPAK AGRAWAL	CHECKED IN	7	
0	JAN 05, 2013 09:14	OPD DEEPAK AGRAWAL	CANCELLED BY PATIENT	8	
0	JAN 05, 2013 09:16	OPD DEEPAK AGRAWAL	NO-SHOW	9	
0	JAN 05, 2013 09:18	OPD DEEPAK AGRAWAL	CANCELLED BY PATIENT	10	
0	JAN 05, 2013 09:20	OPD DEEPAK AGRAWAL	ACTION REQUIRED	11	
0	JAN 05, 2013 09:22	OPD DEEPAK AGRAWAL	ACTION REQUIRED	12	
0	JAN 05, 2013 09:24	OPD DEEPAK AGRAWAL	ACTION REQUIRED	13	
0	JAN 05, 2013 09:26	OPD DEEPAK AGRAWAL	ND-SHOW	14	
0	JAN 05, 2013 09:28	OPD DEEPAK AGRAWAL	CANCELLED BY PATIENT	15	
0	JAN 05, 2013 09:30	OPD DEEPAK AGRAWAL	CHECKED IN	16	
0	JAN 05, 2013 09:32	OPD DEEPAK AGRAWAL	CHECKED IN	17	
0	JAN 05, 2013 09:34	OPD DEEPAK AGRAWAL	CHECKED IN	18	
0	JAN 15, 2013 09:02	OPD DEEPAK AGRAWAL	ACTION REQUIRED	2	
0	JAN 17, 2013 09:00	OPD DEEPAK AGRAWAL	CHECKED IN	1	TEST DIAGNOSIS1 TEST DIAGNOSIS2
0	APR 11, 2013 09:00	OPD DEEPAK AGRAWAL	ACTION REQUIRED	1	TEST DIAGNOSIS
0	JUL 13, 2013 09:00	OPD AMIT GUPTA	CANCELLED BY PATIENT	1	TEST
0	JUL 13, 2013 09:02	OPD AMIT GUPTA	ACTION REQUIRED	2	TEST
0	AUG 14, 2013 09:00	OPD AMIT GUPTA	ACTION REQUIRED	1	TEST
		Make Visit Cancel Annt	No Show OPD Card	Dark	



. .



Logout

No Show

)

2

2

2

۵

X

۵

۵

۵

۵

2

≫

2

Create Visit & List Visit

anageme	ent Software					Weld	ome	MOHAN SINGH			Logout				
1															
	Patient Visit Deta	ils			Bro	ught By De	tails								
ŀ	HRN/TC NO	348144			Bro	uaht by	Cat	's		1					
V	Visit No	2			Nar	ne		-		7					
0	Consultant Name	DEEPAK AGRAV	VAL		Rel	ationship	- S	ielect -	E.						
A	Attended By				Adv	frees Line	, _			-					
((Resident) *	No			Ade	ress Line	2			i					
	MLC Case	No			Sta	te	DE	ш	5						
•	Mode of Injury	Fall			Die		UL	211							
0	Criticality	Red			Cost	unice .	IND	210	F	-					
т	Treating Facility	select			Cou	intry	INU			•					
R	Refered By				Mol	hile Numb	Ar +91								
((Doctor/Hospital)									and and a				-	1 k
((Doctor/Hospital)					stA	R		a le le	1	jai Prakasi Apex Trau	h Narayai ma Cente	n r	-	-10- 10
((Doctor/Hospital)		Practic	Ente Manageme	CIII IVIS	stA	R		a la la		lai Prakasi Apex Trau	h Narayai ma Cente ^{Wekome}	MOHAN SINGH		10
((Doctor/Hospital)		Practic Visit Lis	Ente Manageme	r prise-wi	StA	R			1	jai Prakasl Apex Trau	h Narayai ma Cente ^{Wekome}	MOHAN SINGH	5112 0112	- 10 m
((Doctor/Hospital)	vate Visit	Practic Visit List	Ente e Manageme	TE Num	ber: 34	7781				jai Prakasi Apex Trau	h Narayai ma Cente ^{Wekome}	MOHAN SINGH		
((Doctor/Hospital)	ate Visit	Practic Visit List Vis	e Manageme	TC Num Date/Time	ber: 34	R 7781	Treating Facility	njury	Criticality	jai Prakasi Apex Traun	h Narayan ma Cente Welcome Attended By	MOHAN SINGH	Brought By	
((Doctor/Hospital)	ate Vist	Practic Visit List Visit Control	e Manageme t Visit	TE Numi Date/Time	ber: 34 COPD N	R 7781 ALC EM	Treating Facility MERGENCY MEDICINE	njury FALL	Criticality GREEN	Consultant Name BHOI KUMAR,SANJE	Marayan Marayan Welcome Attended By EV DR RANJANA	MOHAN SINGH Refered From	Brought By RELATIVE	
((Doctor/Hospital)	ate Visit	Practic Visit List	e Manageme t Visit JAN 09, 2 JAN 08, 2	TC Numi Date/Time	de EH	R 7781 я.с	Trating Facility MERGENCY MEDICINE	njury FALL	Criticality GREEN	Consultant Name BHO3 KUMAR,SANJE	Marayan Welcome Attended By IEV DR RANJANA	MOHAN SINGH Refered From	Brought By RELATIVE	
((Doctor/Hospital)	vate Visit	Practic Visit List	t Mail JAN 09, 2 JAN 09, 2 JAN 09, 2	Date/Time 1013 09:25:45 1013 20:23:09 1013 20:23:10	ber: 34 COPD M	7781 NO EM	Peating Facility MERGENCY MEDICINE	njury FALL	Criticality GREEN	Consultant Name BHOI KUMAR, SANJE	Attended By EV DR RANDANA	MOHAN SINGH Refered From	Drought By RELATIVE	
((Doctor/Hospital)	ate Visit	Practic Visit List 0 1 0 0 0 0 0 0	t Mail JAN 09, 3 JAN 08, 3 JAN 08, 3 JAN 09, 1 JAN 09, 1	Construction TC Num Date/Time 013 09:25:45 013 20:23:10 013 07:00:51 013 09:15:64	de EH	я 7781 п.с NO ЕМ	Treating Facility MERGENCY MEDICINE	njury FALL	Criticality GREEN	Consultant Name BHOI KUMAR,SANJE	Attended By EEV DR RANJANA	MOHAN SINGH Refered From	Brought By RELATIVE	
	(Doctor/Hospital)	vate Visit	Practic Visit List 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	e Manageme t Mai JAN 09, 2 JAN 08, 2 JAN 08, 2 JAN 09, 2 JAN 09, 2 JAN 09, 2	TC Num Date/Time 1013 09:25:45 1013 20:23:09 1013 20:23:10 1013 07:00:51 1013 09:13:56 1013 09:13:56	ber: 34	R 7781 кс	Treating Facility MERGENCY MEDICINE	njury FALL	Criticality GREEN	Consultant Name BHOI KUMAR,SANJE	Marayan Mekome Attended By IEV DR RANJANA	MOHAN SINGH Refered From	Brought By RELATIVE	

Admission





Admission Details





Print

Report

Transfer

GTIVistA Enterprise-wide EHR	Ap	ex Trauma	Center
RANSFER		Welcome MOH	AN SINGH
TC NO:	180892	Name:	RAMESH CHANDU
Admitted Date:	AUG 12, 2013 03:50:48		
Ward:	TC2 COMMON ICU	Room Bed:	TC2-03
Provider (Senior Resident):	MANOJ PHALAK	Speciality:	NEUROSURGERY
Attending (Consultant):	DEEPAK AGRAWAL		
Type Of Transfer	INTERWARD TRANSFER	-	
Ward Location *	TC3 NEUROSURGERY ICU	Room Bed *	TC3-18
Do You Want to Change Speciality			
Facility Treating Speciality *	GENERAL SURGERY	-	
Primary Physician (Senior Resident)	UMASHANKAR KANNAN	Attending Physician (Consultant) *	AMIT GUPTA
Diagnosis *	Abdominal Trauma	•	



Discharge

	CID- GTIVISTA Enterprise-wide EHR	- Aller	jai l Ape	Prakash Nara ex Trauma Ce	ayan enter	
PIMS IPD				Welcome MOHAN	SINGH	Logout
	TC NO: Adimitted Date: Ward: Provider (Senior Resident): Attending (Consultant):	180892 JUL 09, 201 TC3 NEURO SAURABH SUMIT SIN	13 08:17:17 DSURGERY ICU SHARMA HA	Name: Transfer Date: Room Bed: Speciality:	RAMESH CHANDU JUL 17, 2013 12:07:33 TC3-MCS2 NEUROSURGERY	
	Total No of Pages: Secondary Diagnosis/Complications: OT Procedure1: OT Procedure2:			Type of Discharge: Final Diagnosis: Date: Date:	REGULAR	
		Discharge	Reset	Back		



OTHER IMPLEMENTATIONS BY GTI



Turnkey HIS at 12 Govt. of Delhi Hospitals catering to over 8,000,000 patients/year (Largest in the country)

Directorate of Health Services (DHS) of Government NCT (National Capital Territory) of Delhi is the largest department under Department of Health and Family Welfare, providing health care facilities at primary and secondary level to the citizens of Delhi through various types of health outlets. DHS handles the most number of patients across its several multi-speciality hospitals in the National Capital Region.



सत्यमेव जयते Government of National Capital Territory of Delhi

		# of		# OF PAT	IENTS	
#	HOSPITAL NAME	# Of Beds	OPD NEW REGNS.	SPECIAL CLINIC REGNS	CASUALTY REGNS.	NO OF IPD REGNS
1	Guru Teg Bahadur Hospital	1,500	1,361,687	162,176	237,737	78,065
2	Babu Jagjiwan Ram Hospital	100	503,340	28,612	137,465	12,250
3	Baba Saheb Ambedkar Hospital	500	1,009,198		128,171	47,809
4	Deep Chand Bandhu Hospital	100				
5	Dr. Headgeware Hospital	200	189,707		423,921	18,060
6	Dr. NC Joshi Hospital	30	167,000		14	
7	Jag Parvesh Chandra Hospital	300	629,435		75,224	11,422
8	Kanti Nagar Mother & Child	100	49,568			256
9	Lal Bahadur Shastri Hospital	100	657,121	12,774	190,438	18,723
10	Maharishi Valmiki Hospital	150	322,831	6,011	92,142	9,179
11	Sanjay Gandhi Hospital	376	697,772	10,123	112,955	27,228
12	SRHC Hospital	200	475,691	-	23,765	8,031
	TOTAL	3,656	6,063,350	219,696	1,421,832	231,023

GTI's Solution for DHS caters to over 8,000,000 patients: One of the Largest in the COuntry

Based on the Practice Management Suite developed, GTI's Hospital Information System is implemented across 12 DHS hospitals in Delhi.

GTI is responsible for complete turnkey Computerization of OP (Ambulatory), Casualty & Indoor Patient Services that includes:

- HIS Software Development, Installation & Maintenance as per the requirements of the individual hospital.
- Software features IP, OP (Ambulatory) & Casualty Registration, ADT, ICD Coding, Medico Legal Coding, Lab, and much more.
- Hardware Supply, Installation & maintenance
- 150 Medical/Software Professionals working 24x7 across 12 hospitals
- Consumables such as OPD/IPD/Casualty Cards, Lab barcodes, Printers, etc.
- Patient & Hospital clinical staff handling at various stations/departments
- Extensive Report generation using BI/DW tool as required by the Hospitals



Turnkey: Hence the GTI's Enterprise End-to-End Solution







Bed Management System integrated with VistA at RGCI (a 350 bed Cancer Hospital)

- GTI developed a Bed Management System integrated with VistA for RGCI. The Solution features:
- GUI based Bed Management System deployed across Clinics, Registration, Finance & Accounts.
- View availability of the beds graphically incorporating all the blocks & wards
- The User (Ward Nurse) is be able to view beds filtered by their floor/ward/type
- The Beds represented on GUI is color coded for Occupied, Transit, House Keeping, Blocked & Available
- Built-in Reports including
 - Bed Utilization in Percentage
 - Turnaround time between a bed being available (yellow) & occupied (green) i.e. Transit status
 - Total number of beds occupied at any given time incorporating the Patient, Blocks & Wards
 - Patient-wise bed occupancy report
 - Report on the Person changing the status of the bed (if this information is available through HL7)
 - Ability to create new reports based on RGCI requirements
- Besides being used at every nursing station, the system is displayed on several 50" LCD Monitor/TV for the Administrator where they will see the entire Hospital at a glance.
- Credential based with extensive Admin panel to configure the user/credentials
- Bed Administration include ability to add, delete & edit beds along with transfers
- GTI BMS is an integration with Mirth to take HL7 Admission, Discharge & Transfer information from the VistA EHR to the GTI BMS.
- Cron job to ensure correction of error in-case of data mismatched between VIstA, HIS & BMS.







Dashboard





Floor wise





Bed Occupancy Report

🔊 🗢 🧔 http://localhost/dashboard.asp	ement system - windows Internet Explorer	🔎 🛃 🏉 🔏 Rajiv Ga	ndhi Cancer Institu	it ×			^
Rajiv	andhi Cancer Institute and Res s. Shruti Singh, user	search Centre	22 PM	BI	ED MAN	AGEMENT SYSTE/	A tt
Bed Status ► Block wise ► Floor wise	Bed Occupancy Report Report generated on 13 January 201	15 1:28:17 PM				X DOWNLOAD EXCEL	
ward wise	Bed Category	Total Beds	Occupied	Blocked	Vacant	Occupancy (%)	
Reports	1. BMT	5	2	1	2	50.00%	
Bed Utilization	2. DAY CARE	25	15	0	10	60.00%	
► Bed Occupancy	3. DELUX	11	7	2	2	77.78%	
Turnaround tim	4. DELUX SUIT	1	0	1	0	0	
Discharge Track	5. ECONOMY SPECIAL	48	42	1	5	89.36%	
	6. GENERAL WARD	113	87	16	10	89.69%	
Legend	7. GENERAL WARD CAS	0	0	0	0	0	
	8. HDU	10	5	2	3	62.50%	
Red Status	9. MICU	13	9	0	4	69.23%	
Occupied	10. OT	12	2	0	10	16.67%	
	11. PRIVATE ROOM	14	9	0	5	64.29%	
	12. PRIVATE ROOM OLD	4	0	1	3	0.00%	
	13. SEMI PRIVATE	30	22	0	8	73.33%	
Yellow Stat	14. SEMI PRIVATE DELUX	22	19	0	3	86.36%	
	15. SEMI PRIVATE N	0	0	0	0	0	
	16. SEMI PRIVATE-F	16	14	0	2	87.50%	
	17. SICU	34	20	0	14	58.82%	
	18. THYROID WARD	3	0	0	3	0.00%	
Green Stat		Total: 361	253	24	84	70.08%	
Available							



Utilization Report





Turnaround Report





Discharge Process Tracing report

Rajiv Gandhi Cancer Institute and Research: Bed Management S	System - Windows Internet Exp	lorer							
S v Attp://localhost/dashboard.asp		ر + 🗨 ۹	🦉 Rajiv Ga	andhi Cancer I	nstitut 🗙				
Rajiv Gandhi	Cancer Institute an	d Research Cer 13 January, 2	ntre 015 13:29	:45 PM		BED N	ANAGE	MENT	SYSTEM Logout
Bed Status ► Block wise ► Floor wise	Discharge Process Report generated on 13 Janu	Tracking Repor ary 2015 1:29:40 PM	t				Select date	z Jan 13,	, 2015 🔛
 Ward wise 						Time			
Banastr	CR No. Name	Floor / Ward / Bed	Admission	Discharge Start	Discharge Summary	Bill Settlement	Pharmacy Settle	Bed Vacant	Bed Ready
Bed Utilization Bed Occurancy		2nd Floor THYROID WARD 262-THY	12-01-2015 10:08 AM	12-01-2015 1:50 PM	12-01-2015 1:50 PM	12-01-2015 1:50 PM		13-01- 2015 10:57 AM	
Turnaround time Discharge Tracking		1st Floor GENERAL WARD 105AN-GNW	12-01-2015 10:08 AM	12-01-2015 1:50 PM	12-01-2015 1:50 PM	12-01-2015 1:50 PM		13-01- 2015 12:04 PM	13-01- 2015 12:04 PM
Logond		1st Floor PRIVATE ROOM 110B-PVT	12-01-2015 10:08 AM	12-01-2015 1:50 PM	12-01-2015 1:50 PM	12-01-2015 1:50 PM		13-01- 2015 12:05 PM	13-01- 2015 12:48 PM
Red Status		4th Floor DELUX 2472-DLX	12-01-2015 10:08 AM	12-01-2015 1:50 PM	12-01-2015 1:50 PM	12-01-2015 1:50 PM		13-01- 2015 12:20 PM	
Ccupied		4th Floor DELUX 2473-DLX	12-01-2015 10:08 AM	12-01-2015 1:50 PM	12-01-2015 1:50 PM	12-01-2015 1:50 PM		13-01- 2015 12:25 PM	13-01- 2015 1:06 PM
		2nd Floor PRIVATE ROOM OLD 26D-PVO	12-01-2015 10:08 AM	12-01-2015 1:50 PM	12-01-2015 1:50 PM	12-01-2015 1:50 PM		13-01- 2015 1:21 PM	
Yellow Status Transit	120275 SUNEET BINDLISH	4th Floor SEMI PRIVATE 2468A-SPV	13-01-2015 12:30 PM					13-01- 2015 12:40 PM	
	137206 MANISH .	3rd Floor OT OT3-OPT	13-01-2015 10:41 AM					13-01- 2015 12:26 PM	
Green Status	137206 MANISH .	1st Floor GENERAL WARD 105BN-GNW	12-01-2015 4:43 PM					13-01- 2015 10:41 AM	13-01- 2015 11:08 AM
Available	139296 NARESH MOHAN MAHTO	3rd Floor SEMI PRIVATE-F 2359A-SPF	12-01-2015 1:50 PM					13-01- 2015 10:21 AM	13-01- 2015 12:40 PM



Transit Status





Manage Bed Status

🥰 Rajiv Gandhi Cancer Institute and Research: Bed M	nagement System - Windows Internet Explorer		
🚱 🗢 🧟 http://localhost/admin/menu.asp	P 🖻 😚 <i>i</i> Rajiv	v Gandhi Cancer Institut 🗙	ि ☆ 🕸
🤹 Rajiv Ga	dhi Cancer Institute and Research	Bed Management System Admin	^
Logged in as Mrs. Sh	ti Singh	13 January 2015	
General	Manage Bed Status		
Home Logout Bed Admin Manage Bed Status	Search Panel Ward Select DAY CARE DELUX SUIT ECONOMY SPECIAL GENERAL WARD GENERAL WARD GENERAL WARD CAS HDU MICU OT PRIVATE ROOM PRIVATE ROOM PRIVATE ROOM SEMI PRIVATE DELUX SEMI PRIVATE FS SICU THYROID WARD	lock[Select] v	
Do you want In	rnet Explorer to remember the password for localhost? Why am I seeing th	his? ⊻es <u>N</u> o ▼ ×	v



Bed list

🧲 Rajiv Gandhi Cancer Institute an	id Research: Bed Manageme	nt Sys	tem - Windows In	ternet Explorer						_ 8
💽 😔 🗢 🎑 http://localhost/admir	n/menu.asp			• ٩	🗟 🐓 👔	🗿 Rajiv Gai	ndhi Cancer Institut 🗙			🔐 🛠 ଶ
	Rajiv Gandhi C	anc	er Institute	and Research			Be	ed Management	System Admir	1
Lo	gged in as Mrs, Shruti Singh								13 January 2015	
Ge	eneral	Ma	nage Bed Status]
Hor Log	ne jout	Se Wa	arch Panel ard [Select]	Floor	[Select] 🔽	Block	[Select] 🗸			
Ве	ed Admin	Cri	teria [Select]	✓ Starts with ✓					search>	
Mar	nage Bed Status						Click on Bed Name to v	iew details Showing 1	- 50 of 207 Beds]
		No.	Bed Name	Ward	Floor	Block	Patient Name		Status	1
		1.	101BB-SPV	SEMI PRIVATE	Floor 1	А	CHARANJEET KAUR			
		2.	102AA-SPV	SEMI PRIVATE	Floor 1	А	O. TYAGI		2	
		3.	105CN-GNW	GENERAL WARD	Floor 1	А	SURESH KUMAR		2	
		4.	105DN-GNW	GENERAL WARD	Floor 1	А	MUKESH KUMAR			
		5.	105EN-GNW	GENERAL WARD	Floor 1	A	SURENDRA BIHARI SAXENA	4	2	
		6.	105FN-GNW	GENERAL WARD	Floor 1	А	TAHIR HUSSAIN DAR		2	
		7.	105GN-GNW	GENERAL WARD	Floor 1	А	RAMJEE SINGH			
		8.	105HN-GNW	GENERAL WARD	Floor 1	A	SUREINDER KUMAR		<u>/</u>	
		9.	105IN-GNW	GENERAL WARD	Floor 1	A	KUNAL KANTI DAS		2	
		10.	105JN-GNW	GENERAL WARD	Floor 1	A	SHAFIQUE AHMAD		2	
		11.	106AN-GNW	GENERAL WARD	Floor 1	A	SAVITA SINGH			
	Do you want Internet Exp	plorer	to remember the j	password for localhost?	<u>W</u> hy am I se	eing this?		<u>Y</u> es	<u>N</u> o v ×	



Change the status

Correction Logged in as Mrs. Shruti Singh Logged in as Mrs. Shruti Singh Ceneral Manage Bed Status Home Logout Bed Admin Manage Bed Status Floor Criteria Search Panel Ward Criteria Citt Bed Status Edit Bed Status: Edit Bed Status:	☆ ‡
Logged in as Mrs. Shruti Singh 13 January 2015 General Manage Bed Status Home Search Panel Logout Search Panel Ward - [Select] - V Floor - [Select] - V M I I I I I I I I I I I I I I I I I I	
General Manage Bed Status Home Search Panel Logout Search Panel Bed Admin Criteria - [Select] - V Starts with V Manage Bed Status Edit Bed Status: 102AA-SPV, Block A, 1st Floor, SEMI PRIVATE	^
Home Search Panel Logout Ward[Select] V Floor[Select] V Block[Select] V Image Block[Select] V Bed Admin Criteria[Select] V Starts with V search > Manage Bed Status Edit Bed Status: 102AA-SPV. Block A, 1st Floor. SEMI PRIVATE	
Bed Admin Criteria Criteria Starts with search> Manage Bed Status Edit Bed Status: 102AA-SPV. Block A, 1st Floor, SEMI PRIVATE Search>	1
Manage Bed Status Edit Bed Status: 102AA-SPV. Block A. 1st Floor, SEMI PRIVATE	
New Status Image: Comparison of the status Image: Comparis	
Actual Admission Time of Actual Admission 00 V 00 V [HH : MM]	
update> cancel>	



Transit Status

🕰 Rajiv Gandhi Cancer Institute and Research: Bed Mana	agement System - Windows Internet Explorer	
C	P 🔄 🧐 🍘 Rajiv Gandhi Cancer Institut 🗙	⊕ ★ ‡
Logged in as Mrs. Shrut	Singn 13 January 2015	^
General	Manage Bed Status	
Home Logout Bed Admin	Search Panel Ward [Select] v Floor [Select] v Criteria [Select] v Search Panel search >	- 1
Manage Bed Status		
	Edit Bed Status: 102AA-SPV, Block A, 1st Floor, SEMI PRIVATE	
	Current Status	
	Occupied Transit Available Housekeeping Blocked Date of status 13 January 2015 Time of status 13 V 34 V [HH : MM]	
	Patient Details: Attending Doctor SUNIL KUMAR /ROBERT First Name O. Last Name TYAGI CR 180465 Date of Admission Jan 13, 2015 Please select one of the following: O File sent to DS room DS Received at ward Treatment / Referral (TR) Pharmacy (PH) Billing (BL)	
	update> cancel>	~



Status Change: Blocked

ERajiv Gandhi Cancer Institute and Research: Bed Managem	ent System - Windows Internet Explorer	
C C F Attp://localhost/admin/menu.asp	P 🔄 😚 🏈 Rajiv Gandhi Cancer Institut 🗙	🕀 🖈 🔅
Logged in as Mrs, Shrud Sing	10 Jailuary 2015	~
General	Manage Bed Status	
Home Logout Bed Admin Manage Bed Status	Search Panel Ward -[Select]- Criteria -[Select]- Status: Image: Status in the image	
	update> cancel>	



V

View: All Beds

🧟 Rajiv Gandhi Cancer Institute and Research: Bed Management System - Windows Internet Explorer												
🚱 😔 🗢 🎉 http://localhost/admin/menu.asp 🔎 💌 🚱 🌮 🎉 Rajiv Gandhi Cancer Institut 🗙 👘												
	Logged in as Mrs. Shruti Singh 13 January 2015										^	
	General	Ma	anage Bed Status									
Home Search Panel Logout Ward - [Select] - V Block - [Select] - V Bed Admin Criteria - [Select] - V Starts with V										-		
	Manage Bed Status	L					Click on Bed Name to view details Showing	1 - 50 of 3	61 Beds			
		No.	Bed Name	Ward	Floor	Block	Patient Name	Status		^		
		1.	01MA-GNW	GENERAL WARD	Floor 5	A			2			
		2.	02MA-GNW	GENERAL WARD	Floor 5				1			
		з.	101AA-SPV	SEMI PRIVATE	Floor 1	A			1			
		4.	101BB-SPV	SEMI PRIVATE	Floor 1	A	CHARANJEET KAUR		1			
		5.	102	вмт	Floor 1	A			2			
		6.	102AA-SPV	SEMI PRIVATE	Floor 1	А	O. TYAGI		2			
		7.	102BB-SPV	SEMI PRIVATE	Floor 1	A			2			
		8.	105AN-GNW	GENERAL WARD	Floor 1	А	MUSHARAAF .		1			
		9.	105BN-GNW	GENERAL WARD	Floor 1	A			2			
		10.	105CN-GNW	GENERAL WARD	Floor 1	А	SURESH KUMAR		1			
		11.	105DN-GNW	GENERAL WARD	Floor 1	A	MUKESH KUMAR		2			
		12.	105EN-GNW	GENERAL WARD	Floor 1	A	SURENDRA BIHARI SAXENA		1			
		13.	105FN-GNW	GENERAL WARD	Floor 1	A	TAHIR HUSSAIN DAR		2			
		14.	105GN-GNW	GENERAL WARD	Floor 1	A	RAMJEE SINGH		2			
		15.	105HN-GNW	GENERAL WARD	Floor 1	A	SUREINDER KUMAR		2	~	~	



Add New Bed

🙋 Rajiv Gandhi Cancer Institute and Resea	rch: Bed Management System - '	Vindows Internet Explorer					
🚱 🗢 🎑 http://localhost/admin/menu.a:	p	Q	💌 🗟 🛃 <i></i> Rajiv Ga	ndhi Cancer Institut 🗙			☆ ☆ 🌣
🤹 R	ajiv Gandhi Cancer Ir	stitute and Research			Bed Managem	ent System Admin	^
Logged in	as Mr. Chiranjeev Singh					13 January 2015	
General	Manage	Beds					
Home Logout User Adm Manage Use Manage Bed Manage Bed	in Criteria rs I Status	anel [Select] V Floor [Select] V Starts with V	[Select] V Block	[Select] 🔽 🗌		Search>	



BI/DW Tools for VistA: Unsigned Report

Unsigned Orders

- Report run by Clinical supervisors or others concerned with maintaining the integrity of the medical record. Reports will show any orders without signatures in the system
- The report delivers a list of all Unsigned Orders for all the patients currently admitted in the Hospital on the day of running the report.
- The Columns of the Report will be:
 - Author
 - Patient Name
 - Last4
 - Entry Date & Time
 - HRN/IEN
 - Division (if available)
 - Speciality (if available)
 - Location (if available)



Unsigned Orders

PROVIDER NAME	PATIENT NAME	AGE	STATUS	ENTRY DATE TIME
	PATIENT, JULIE	51	UNRELEASED	29-Aug-2013 10:05
	PATIENT, DAVID	35	UNRELEASED	29-Aug-2013 11:00
	PATIENT, DAVID	35	UNRELEASED	29-Aug-2013 11:01
	PATIENT, DAVID	35	UNRELEASED	29-Aug-2013 11:02
	PATIENT, DAVID	35	UNRELEASED	29-Aug-2013 13:40
	PATIENT, DAVID	35	UNRELEASED	29-Aug-2013 14:10
	PATIENT, DAVID	35	UNRELEASED	29-Aug-2013 15:38
	PATIENT,BH	68	UNRELEASED	01-Aug-2012 13:01
	TEST,TEST	35	UNRELEASED	20-Sep-2013 23:53
	TEST, TEST	35	UNRELEASED	20-Sep-2013 23:54
	PATIENT, HIP	68	UNRELEASED	22-Apr-2013 8:49
	PATIENT, JULIE	51	UNRELEASED	03-Sep-2013 7:42
	PATIENT,BH	68	UNRELEASED	27-Jan-2010 8:46
	PATIENT, RADIOLOGY	43	UNRELEASED	11-Sep-2012 10:00
	PATIENT, RADIOLOGY	43	UNRELEASED	11-Sep-2012 10:01
	PATIENT, DAVID	35	UNRELEASED	23-Aug-2013 11:50
	PATIENT,BH	68	UNRELEASED	22-Mar-2011 15:41
	PATIENT, RADIOLOGY	43	UNRELEASED	29-Aug-2013 11:41
	PATIENT, CHEST PAIN	58	UNRELEASED	02-Nov-2008 9:42
	PATIENT, DIETARY	44	UNRELEASED	09-Oct-2012 16:00
	PATIENT, RADIOLOGY	43	UNRELEASED	03-Jan-2013 13:00
	PATIENT, RADIOLOGY	43	UNRELEASED	03-Jan-2013 13:01
	PATIENT, RADIOLOGY	43	UNRELEASED	03-Jan-2013 13:07



Performance Measure Reports

Meaningful Use Organizational Performance Measures: Ischemic Stroke – Discharge on Antithrombolitic therapy

- This report displays all patients who are admitted under ICD9 code for Ischemic Stroke that includes 433.01, 433.11, 433.21, 433.31, 433.81, 433.91, 343.01, 343.11, 343.91,436 excluding & including patients as per the following Logic.
- **Inclusion Logic:** Medication order in outpatient prescription or home medication for Antithrombotic medication. The Medication must be active by the day following discharge.
- Exclusion Logic:
 - Patients who are under the age of 18
 - Patients on clinical trial with ICD code V70.7
 - Patients Admitted for carotid intervention CPT code 75676, 75665, 75660, 34001, 37600-37606, 88.41, 88.42, 38.02
 - Patients whose length of stay was more that 120 days
 - Patients who refused medication



ISCHEMIC STROKE- DISCHARGE ON ANTITHROMBOLITIC THERAPY

PROVIDERNAME	PATIENTNAME1	AGE	CPTCODE	ICDCOE	NDC
TEST,USER	PATIENT,BH	68	70450	436.	00093-0756-01
TEST,USER	PATIENT,BH	68	70450	436.	00173-0242-56
TEST,USER	PATIENT,BH	68	70460	436.	00093-0756-01
TEST,USER	PATIENT,BH	68	70460	436.	00173-0242-56
TEST, USER	PATIENT, BH	68	71010	436.	00093-0756-01
TEST, USER	PATIENT,BH	68	71010	436.	00173-0242-56
TEST, USER	PATIENT, BH	68	71020	436.	00093-0756-01
TEST, USER	PATIENT,BH	68	71020	436.	00173-0242-56
TEST, USER	PATIENT, BH	68	72192	436.	00093-0756-01
TEST, USER	PATIENT,BH	68	72192	436.	00173-0242-56
TEST, USER	PATIENT, BH	68	74000	436.	00093-0756-01
TEST, USER	PATIENT,BH	68	74000	436.	00173-0242-56
TEST,USER	PATIENT, BH	68	74150	436.	00093-0756-01
TEST, USER	PATIENT,BH	68	74150	436.	00173-0242-56
TEST, USER	PATIENT, BH	68	74160	436.	00093-0756-01
TEST, USER	PATIENT, BH	68	74160	436.	00173-0242-56
	PATIENT, PHARMACY	38	77056	436.	00068-0020-01
	PATIENT, PHARMACY	38	77056	436.	00039-0067-10
	PATIENT, PHARMACY	38	77056	436.	
	PATIENT, PHARMACY	38	77056	436.	00006-0070-00
	PATIENT, PHARMACY	38	77056	436.	00140-00
					Jenny-GPS



OP (Ambulatory) Reports

		Mahari	ishi Valr	niki Hosp	<u>oital</u>		
OPD Patient Su	immary	From : 27-	Dec-2013 To	: 27-Dec-2013		Print Date : 2	7/12/2013
Department		Room		Category		Total No's P	atients
DENTAL		120		GENERAL		31	1
					<u>Sub Total</u>	31	1
E.N.T		131		GENERAL		52	2
					Sub Total	52	2
EYE		117		GENERAL		73	3
					Sub Total	73	3
GYNAE		101		GENERAL		:	3
GYNAE		102		GENERAL		4	4
					<u>Sub Total</u>	1	7
MEDICINE		110		GENERAL		88	Ð
MEDICINE		111		GENERAL		77	7
MEDICINE		112		GENERAL		98	3
					<u>Sub Total</u>	264	1
ORTHOPAEDICS	(011		GENERAL		47	7
ORTHOPAEDICS	(012		GENERAL		49	9
					Sub Total	96	i
PAEDS		104		GENERAL		75	5
PAEDS		105		GENERAL		75	5
					Sub Total	150)
SKIN		139		GENERAL		4	4
					<u>Sub Total</u>	4	1
SURGERY		127		GENERAL		31	1
SURGERY		128		GENERAL		30	3
					Sub Total	64	1
				Tota	OPD Patient	741	1
		OPD C	onsolidate	ed Summa	ry		
OPD Type	Child Male	Child Female	Adult Male	Adult Female	Elderly Male	Elderly Female	Total
New OPD Cards	127	65	256	217	31	45	741
Revisit OPD Cards	20	11	45	70	8	12	166



OP (Ambulatory) Detailed Reports

Maharishi Valmiki Hospital

Daily OPD Register		From : 26	-Dec-2013 T	Print Date : 27/12/2013		
Card No	Department	Room No	UHID	Patient's Name	Sex / Age	
22-Dec-2013						
10044	GYNAE	102	10044	SEEMA	F / 22	
10045	GYNAE	102	10045	SEEMA	F / 22	
10046	PHYSIOTHERAPY	02	10046	SAKSHI	F / 3	
10047	GYNAE	101	10047	MAMTA	F / 28	
10048	GYNAE	102	10048	ROBINA	F / 22	
10049	PHYSIOTHERAPY	02	10049	SHANTANU	M / 2.6	
10050	MEDICINE	111	10050	KARIMAN	M / 50	
10051	MEDICINE	110	10051	RUBINA	F / 15	
10052	MEDICINE	112	10052	SAKILA	F / 26	
10053	PHYSIOTHERAPY	02	10053	MD NASIM	M / 6	
10054	GYNAE	101	10054	PUSHPA	F / 22	
10055	MEDICINE	112	10055	MANJU	F / 17	
10056	GYNAE	102	10056	MANJU	F / 25	
10057	MEDICINE	110	10057	BIMLESH	F / 52	
10058	MEDICINE	112	10058	SUBADAR JHA	M / 42	
10059	GYNAE	101	10059	PINKI	F / 22	



INDIAN HEALTHCARE IT OVERVIEW



Indian Healthcare Industry: Key Indexes by Earnest & Young

#	DESCRIPTION	2009-2010	2021-2022	
1	POPULATION	1.10 Billion	1.35 Billion	
INPATIE	ENTS			
2	IPD CASES	35.6 Million	55.0 Million	
3	BEDS	1.08 Million	1.65 Million	
4	DOCTORS (PER 1000)	0.50	1.20	
OUT PA	TIENTS			
5	NO.OF OPD CASES	2.40 Billion	4.15 Billion	

Country	Bed/1000	Dr./1000	Nurse/1000
India	1.5	0.5	0.9
Low Income (Africa & South East Asia)	1.5	1	1.6
Middle Income (China, Brazil, Thailand)	4.3	1.8	1.9
High Income (US, UK, Europe)	7.4	1.8	7.5
World Average	3.3	1.5	3.3



Indian Healthcare Industry: Market Potential

Domestic Potential

- **Paradigm Shift:** The Healthcare Industry is witnessing a sudden paradigm shift in last five year.
- **Getting Organised:** Healthcare is changing from unorganized to an organized structure.
- **High Growth:** A US\$ 36 billion industry today and growing at 15% CAGR, the Indian healthcare industry will be a US\$ 280 billion by 2022.
- Increasing demand from within the county: The demand for quality healthcare has increased within the domestic healthcare consumers.
- **Strong Indian Economy:** Indian Economy had a GDP growth of 9.0% during 2005-06 to 9.4% during 2006-07. By 2025 the India's economy is projected to be about 60% the size of the US economy.
- Better Profitability (15-20% EBIDTA): If we leave the charitable and government hospitals aside, Healthcare services is witnessing a 15% to 25% profitability and Earlier Breakeven (2-3 years)

International Potential

MEDICAL TOURISM

- **Destination:** The emergence of India as a destination for medical tourism primarily due to relatively low cost healthcare services.
- According to a joint study by the **Confederation of Indian Industry and McKinsey**, Indian medical tourism was estimated at \$350 million in 2006 and has the potential to grow into a \$2 billion industry by 2012.
- Growth: at 25-30% annually.

HEALTHCARE OUTSOURCE TO INDIA

- Medical services outsourcing from the US has seen a CAGR of 150% in the last two years
- Indian service providers accounted for US\$ 115 million worth of outsourcing and off shoring services during 2005-2006
- India has an estimated share of 65 % in the global IT services off shoring segment and around 46 % of the global BPO market
- India's large pool of skilled IT manpower and the fast growing broadband connectivity and secure networks provide robust infrastructure for IT-enabled healthcare services



Indian Healthcare Industry: Medical Infrastructure

Hospital Beds & Doctor Ratios:

- An additional 1.75 million beds are needed for India to achieve the target of two beds per 1,000 Population by 2025.
- An additional 7,00,000 doctors will be required by 2025 to reach a ratio of one medical doctor per 1,000 individuals.
- To maintain the current doctor-to-nurse ratio of 2.2, an additional 1,600,000 nurses will have to be trained by 2025.
- Achieving these targets will require a total investment of US\$ 77.9 billion.

Government Initiatives:

 Several Government Initiatives has been launched to provide better healthcare services

Growth in Insurance sector

- Around 14 per cent of the Indian population is health-insured.
- The health insurance industry is growing at 25% pa & is expected to reach US\$ 5.75 billion in 2010
- Will result in a higher demand for premium healthcare services and consequently increase the demand for medical equipment & infrastructure

Market for Tertiary care:

- The market for tertiary care is expected to grow exponentially due to the rise in complex ailments such as heart diseases and cancer.
- India's changing demographics and the increasing incidence of non-communicable and lifestyle-related diseases is expected to trigger the need for Tertiary Care.
- Increase in the age of the Elderly, hence the care for the Elderly will go up many folds.



Indian Healthcare Industry: Health IT Market

- **GROWING NEED:** According to **Earnest & Young** "The Need for Superior Healthcare Facilities Boosts Growth in the Healthcare Information Technology Market in India
- GROWTH IN PRIVATE HOSPITALS: and their demand for healthcare IT solutions coupled with an increase in medical tourism, and the desire for superior-quality services from the empowered middle class are compelling healthcare providers to operate in a modernized manner. Hospitals authorities are keen to use IT as a means to address these needs. Healthcare IT is expected to reduce cost and increase efficiency by many folds for several hospitals.
- EMR AS NECESSITY: Electronic medical record (EMR) services have a high growth potential at an estimated compound annual growth rate (CAGR) of 13.5 percent from 2009 to 2016. With many new private hospitals opening in the next few years, investment in EMR is expected to become a necessity for these hospitals."



India Healthcare Spent (Billion USD)	2012	2016	2020
Software	0.90	1.69	3.18
Hardware	1.50	2.82	5.30
Services	0.80	1.50	2.83
Others	0.30	0.56	1.06
IT (Total)	3.50	6.58	12.37
Population (Billion)	1.21	1.31	1.41
GDP (Billion USD)	1450	2000	2800
			GTT Tofot

Hospital Segmentation

Hospitals (Nasscom Study)

Hospital Size	%	Beds	IT Implementatio n
State Level		> 10,000	HMIS followed by EMR
Pvt. Hospital Chain		> 1,000	EMR
Large: -Tertiary Care	2-3%	200-500	HMIS
- Super Sp.		>500	EMR
Medium	6-7%	100-200	Quasi HMIS
Small - Clinics & IPD - Small clinics	80%	30-100 <30	Basic Billing, Inventory

Products & Services to be Provided

- Software
 - HMIS
 - EMR
- IT Hardware
 - Servers
 - Workstations
 - LAN & Networks
- Implementation & Customization Services
- Training Services
- Clinical Transformation Services
- Operation & Maintenance Services



VISTA POSITIONING, PROSPECTS & CONCERNS: - STATE LEVEL - LARGE SUPER SPECIALTY HOSPITAL



State Level Implementation







VistA for State Level Implementation: Concerns

Implementation (technical)

• Single System to cater to entire state:

- Large District Hospitals (100-300 beds)
- Medical College Hospitals (50-100 beds)
- Primary health Center (30 beds)
- Community Health Centers (5 beds)
- OP Centers
- Healthcare programs
- Interconnect with various third party systems
 - Finance & Accounts
 - Inventory
 - Billing
 - Asset & Equipment Management
 - PACS & Radiology

• BI/DW Tools

- Financial
- Administrative
- Clinical
- Basic HIMS followed by full blown EMR
 - States are looking to implement in phases
 - Only Basic HIMS like registration, OP, IP, Lab etc. in phase I
 - Followed by EMR later

Others

- Financial:
 - Upfront Payment
 - Public-Private-Partnership (PPP) Model
 - Build Own Operate Transfer (BOOT) Model
- Clinical Transformation & Training: Transferring paper based information into electronic format: the transition of paper-based records into electronic format is a manual and tedious process that include training of staff to take this up.
- Short Project implementation time: States are looking at a modular system that can be deployed fast across the network. the implementation of EMR takes a lot of time as the system is based on the key information flowing across the hospital system and involves various levels of users.
- **High application cost:** Large corporates have approached the States & implemented pilot projects at huge cost, hence Govt. is looking for PPP & BOOT model
- Reluctance to Change & Work flow Interruption: the transition to EMR systems is slow and requires a lot of dedication from all the stakeholders involved – from management (key decision makers) to end users (clinicians, nurses etc.), which could ultimately affect the normal work flow drastically.



Web based system

Large Super Specialty/Medical College Hospital

















Pharmacy ManagementInventory ManagementInventory ManagementInventory ManagementFixed Asset ManagementInventory ManagementCentral Sterile SuppliesInventory ManagementLaundryEquipment Management



GTI Infotel

VistA for Large Hospitals: A good fit but with standard concerns

Implementation (technical)

- Interconnect with various third party systems
 - PACS & Radiology
 - Accounting, Inventory
 - Billing
- BI/DW Tools
 - Financial
 - Administrative
 - Clinical
- Modular system for faster implementation
- Web based system

Others

- Short Project implementation time: Hospitals are looking at a modular system that can be deployed fast across the network.
- **High application cost:** high cost of implementing EMR is affecting hospitals' move due to budget restraints.
- Reluctance to Change & Work flow Interruption: the transition to EMR systems is slow and requires a lot of dedication from all the stakeholders involved
- Unaware of long term benefits: Most hospitals & Doctors are oblivious to the fact that an EMR can, at a long run save substantial costs and increase the healthcare services

Addressing Concerns

Reduce Software Cost:

- Open Source VistA EMR
- Open Source Operating System
- Open Source Database
- Reduce Hardware cost
 - HW required f is not very resource intensive
- Reduce Implementation & Customization cost: Single version with multiple pre-customized instances for
 - Large Hospitals
 - Medium Hospitals
- Vendor Independence: Being open source
- Fully evolved EMR/EHR: VistA provides the best in class EHR with all features as required by the hospitals
- Need to Provide good implementation and post implementation support & training
- Provide modular packages
- Interface with BI/DW tool
- Web based system
- Training & providing manpower to data entry



THANK YOU

Rohit Kumar CEO USA (Mobile): +1-408-455-4274 India (Mobile): +91-98114-12342

rohit@gtiinfotel.com

