

Table 3. Key Performance Indicators for April 2016 from a medium size children hospital and a medium size clinic

Category 1: Indicators of Quality					
Subcategory: Errors					
Objective	Indicator	Metrics	Frequency	Children Hospital	Medium Size Clinic
Minimize unanswered calls to internal consulting physicians	Calling rate to internal consulting physicians with no response	Nº unanswered calls/ Nº calls made	Monthly	NI	NI
Minimize errors (negligence)	Reported error rate in medical and nursing procedures	Nº of adverse event reports / Nº of treatments	Annual	7	0
Minimize treatment errors in diagnosis support	Error rate in activities supporting diagnosis (tests requests, results, handling of samples, others)	Nº of irrelevant supporting activities / Nº supporting activities requested	Monthly	NI	0
Minimize readmission for the same or similar pathology	Patient readmission rate	Nº of patients that seek attention again for the same or similar pathology within 72 hours / Nº treated patients	Monthly	7%	1.1%
Minimize nosocomial infections	Intrahospital infection rate	Number of nosocomial infections /Total Nº of patients	Monthly	NI	0
Minimize rate of deceased patients while waiting for hospitalization	Rate of deceased patients waiting to be hospitalized	Nº patients deceased while waiting for hospitalization/ Nº patients with hospitalization order	Monthly	0	NI
Minimize occurrence of sentinel events	Rate of sentinel events	Nº of patients with sentinel events/Nº total of patients	Monthly	0	0.04%
Minimize complication rate	Rate of medical complications*	Nº patients with complications / Nº total treatments	Monthly	2%	NI
Minimize patient accident rate	Patient accident rate (falls or others)	Nº patient accidents/ Nº total treatments	Monthly	0	0.02%
Minimize personal accident rate	Personal accident rate (medical sharps , splatters)	Nº personal accidents/ Nº total treatments	Monthly	0	0
Minimize medication error rate	Medication error rate	Nº of memos sent by mistake in a patient's medication/Nº total of patients	Monthly	0.00%	0.02%
Minimize non-relevant categorization rate	Non-applicable hospitalization rate	Nº of C4 and C5 patients that are hospitalized / Nº of C4 and C5 patients	Monthly	2%	1%
Minimize non-applicable referral rate of school accidents	Applicable referral rate due to school accidents	Nº patients with school accidents (C1, C2 y C3) / Nº of patients with school accidents	Monthly	NI	NI

Subcategory: Standard Compliance					
Complying with time standards according to patient classification	Standard compliance rate of treatment times according to triage classification C1	Nº of patients that comply with the standard /Nº of patients	Monthly	100%	100%
	Standard compliance rate of treatment times according to triage classification C2	Nº of patients that comply with the standard /Nº of patients	Monthly	100%	63%
	Standard compliance rate of treatment times according to triage classification C3	Nº of patients that comply with the standard /Nº of patients	Monthly	92%	96%
	Standard compliance rate of treatment times according to triage classification C4	Nº of patients that comply with the standard /Nº of patients	Monthly	99%	100%
	Standard compliance rate of treatment times according to triage classification C5	Nº of patients that comply with the standard /Nº of patients	Monthly	100%	100%
Complying with standard triage classification time (10 min.)	Standard compliance time of triage classification times	Nº of patients that comply with the standard /Nº of patients	Monthly	81%	100%
Complying with guides and clinical protocols	Existence of unit protocols	Nº of existing protocols according to clinical manuals	Annual	1	20
Complying with ministry requirements	Getting quality certificates or renewing quality certificates	Nº of times a quality certification has been awarded	Annual	1	2
Subcategory: Staff Satisfaction					
Decrease number of litigations	Litigations	Nº of litigations	Annual	0	0
Decrease complaint rate	Complaint rate	Nº of complaints per triage classification/Nº of patients per Triage categorization	Quarterly	NI	0.02%
Increase staff satisfaction	Average rate of staff satisfaction	Average of satisfaction survey answers/ Nº total surveyed staff	Annual	NI	NI
Decrease quit or transfer rates	Average quit or transfer rates by request	Nº of people that quit or are transferred by request/ Nº total of staff	Annual	2%	2%
Increase trained staff	Training rate (RSP)	Nº of trained staff (RSP)/Nº total staff	Annual	43%	33%
	Training rate (Infectious IAAS)	Nº of trained staff (IAAS)/Nº total staff	Annual	33%	48%

\* measured by changes in categories of higher complexity

Note: NI (no information) is information that at the time of the application in the ED was collected either by other departments and it was not available or never collected.

Table 3. Key Performance Indicators for April 2016 from a medium size children hospital and a medium size clinic (continued)

**Category 2: Temporal Indicators**  
**Subcategory: Waiting Time**

Objective	Indicator	Metrics	Frequency	Children Hospital	Medium Size Clinic
Minimize time	Average admission waiting time	(Admission start time - Patient arrival time)/N° of patients	Monthly	0:01:08	NI
Minimize time	Average triage waiting time	(Triage start time - Admission end time)/N° of patients	Monthly	0:08:19	0:07:18
Minimize time	Average examination room waiting time	(Admission time of patient to examination room - Triage end time) / N° of patients admitted into examination room	Monthly	0:32:31	0:08:36
	Average examination room waiting time for C1 patients	(Admission time of patient to examination room - Triage end time) / N° of patients admitted into examination room	Monthly	0:00:00	0:00:35
	Average examination room waiting time for C2 patients	(Admission time of patient to examination room - Triage end time) / N° of patients admitted into examination room	Monthly	0:12:00	0:10:48
	Average examination room waiting time for C3 patients	(Admission time of patient to examination room - Triage end time) / N° of patients admitted into examination room	Monthly	0:24:04	0:09:43
	Average examination room waiting time for C4 patients	(Admission time of patient to examination room - Triage end time) / N° of patients admitted into examination room	Monthly	0:39:38	0:14:18
	Average examination room waiting time for C5 patients	(Admission time of patient to examination room - Triage end time) / N° of patients admitted into examination room	Monthly	0:41:00	0:07:34
Minimize time	Average waiting time to arrive to the internal consulting physician	(Time of arrival to internal consulting physician- Calling time of internal consulting physician)/N° of patients cared for by consulting physician	Monthly	NI	NI
Minimize time	Average waiting time for medical procedure	(Procedure start time – Procedure request time)/N° of patients under procedure	Monthly	0:14:45	0:18:40
	Average waiting time for nursing procedure	(Procedure start time – Procedure request time)/N° of patients under procedure	Monthly	0:16:18	NI
Minimize time	Average waiting time for activities that support the diagnosis	(Start time supporting activities – Order time of supporting activities)/N° number of supporting activities requested	Monthly	0:15:15	NI
Minimize time	Average waiting time for results of supporting activities	(Delivery time of results– End time of supporting activities)/N° of supporting activities requested	Monthly	0:09:12	NI
Minimize time	Average waiting time for medical discharge	(Real time of discharge- Time of discharge decision) / N° of discharged patients	Monthly	0:06:51	0:35:07

Minimize time	Average waiting time for internal and external transfer	$(\text{Real time of transfer} - \text{Time of transfer request}) / \text{N}^\circ \text{ of transferred patients}$	Monthly	NI	NI
Minimize time	Average waiting time for bed hospitalization	$(\text{Hospitalization time} - \text{Discharge order time}) / \text{N}^\circ \text{ of hospitalized patients}$	Monthly	0:03:00	NI
Minimize time	Average waiting time (total)	$(\text{Average patient cycle time} - \text{average patient treatment time}) / \text{N}^\circ \text{ of discharged patients}$	Monthly	0:48:17	0:20:32
<b>Subcategory: Processing time</b>					
Improve resource allocation	Average resuscitation time	Total time resuscitation / N° patients requiring resuscitation	Monthly	NI	2:24:08
Minimize admission process time (collection)	Average admission time (collection)	$(\text{Admission end time (collection)} - \text{Start time admission (collection)}) / \text{N}^\circ \text{ of patients}$	Monthly	0:02:22	NI
Improve resource allocation	Average triage time	$(\text{Triage end time} - \text{Triage start time}) / \text{N}^\circ \text{ of patients}$	Monthly	0:04:43	NI
Improve resource allocation	Average examination room time	$(\text{Examination room exit time} - \text{Examination room start time}) / \text{N}^\circ \text{ of patients admitted into the treatment examination room}$	Monthly	0:17:40	1:43:37
Improve resource allocation	Average treatment time by internal consulting physician	$(\text{End time internal consulting physician care} - \text{Star time internal consulting physician care}) / \text{N}^\circ \text{ of patients cared for by internal consulting physician}$	Monthly	NI	NI
Improve resource allocation	Average time for medical procedure	$(\text{End time procedure} - \text{Start time procedure}) / \text{N}^\circ \text{ of patients under procedure}$	Monthly	0:13:05	0:19:14
	Average time for nursing procedure	$(\text{End time procedure} - \text{Start time procedure}) / \text{N}^\circ \text{ of patients under procedure}$	Monthly	0:21:43	0:18:45
Minimize time of activities supporting diagnosis	Average time of activities supporting diagnosis	$(\text{End time supporting activity} - \text{Start time supporting activity}) / \text{N}^\circ \text{ of supporting activities requested}$	Monthly	0:06:39	0:22:27
Minimize average time of cycle	Average cycle time of patient per category	$(\text{Real time of discharge} - \text{Admission time}) / \text{N}^\circ \text{ of discharged patients}$	Monthly	1:38:42	2:30:39
Improve resource allocation	Average medical treatment time	$(\text{Time discharge was decided} - \text{Time of medical assessment}) / \text{N}^\circ \text{ of discharged patients}$	Monthly	0:50:27	1:36:13

\*Note: waiting time for all supporting activities, such as blood test and x-rays, are included

Table 3. Key Performance Indicators for April 2016 from a medium size children hospital and a medium size clinic (continued)

Category 3: Economic indicators					
Subcategory: Cost					
Objective	Indicator	Metrics	Frequency	Children Hospital	Medium Size Clinic
Minimize resuscitation cost	Cost for resuscitation activities	Total cost for resuscitation activities	Monthly	NI	399 USD
Minimize admission cost	Cost for admission activities	Total cost for admission activities	Monthly	NI	1.237 USD
Minimize triage cost	Cost for triage activities	Total cost for triage activities	Monthly	NI	2.360 USD
Minimize cost of primary medical attention	Cost for primary medical treatments	Total cost for primary medical treatments	Monthly	NI	20.196USD
Minimize calling cost and of the internal consulting physician's visit	Cost for calling activity and visit of internal consulting physician	Total cost for calling activity and visit of internal consulting physician	Monthly	NI	NI
Minimize cost of medical and nursing procedure	Cost for medical and nursing procedure activities	Total cost for medical and nursing procedure activities	Monthly	NI	47.518USD
Minimize cost of diagnosis support	Cost of activities that support diagnosis	Total cost of activities that support diagnosis	Monthly	NI	29.743USD
Minimize cost of diagnosis revision	Cost of diagnosis review activities	Total cost of diagnosis review activities	Monthly	NI	NI
Minimize cost of patient discharge	Cost for patient discharge activities	Total cost for patient discharge activities	Monthly	NI	30.377USD
Minimize cost of logistic support	Cost for logistic support activities	Total cost for logistic support activities	Monthly	NI	6.047 USD
Minimize cost of maintenance and cleaning activities	Cost for maintenance and cleaning activities	Total cost for maintenance and cleaning activities	Monthly	NI	NI
Minimize average patient cost	Average patient cost per category	Total cost of patients treated by category/ N° of patients discharged by category	Monthly	NI	NI
Subcategory: Financial					
Decrease accounts payable	Outstanding patient accounts (public system-FONASA)	N° of outstanding patient collection accounts/N° of accounts billed to patients	Quarterly	40%	1%
	Outstanding patient accounts (private system-ISAPRE / out-of-pocket payment))	N° of outstanding patient collection accounts/N° of accounts billed to patients	Quarterly	81%	
Stick to the budget	Budget implementation	Budget implemented / budget	Annual / Monthly	101%	45%
Increase patients with regularized financial situation	Rate of patients that regularize their financial situation	N° of patients that regularize their collection situation / N° of patients that received their first medical treatment	Monthly	NI	0.13%

Note 1: The cost subcategory should include costs separated by activities if an Activity Based Costing system is implemented in the hospital.

Note 2: NI (no information) is information that at the time of the application in the ED was collected either by other departments and it was not available or never collected.

Note 3: Equivalence 1 US Dollar = 660 Chilean Pesos

Table 3. Key Performance Indicators for April 2016 from a medium size children hospital and a medium size clinic (continued)

Category 4: Capacity indicators					
Subcategory: Supply					
Objective	Indicator	Metrics	Frequency	Children Hospital	Medium Size Clinic
Control asset quantity					
Technical instruments: Infusion pump, Defibrillator, Vital sign monitor, Notebook, Ophthalmoscope, Weighing scale, Saline stand, Measuring rod, Refrigerated glass display, etc. Furniture for operating services: Weighing scale, Room divider, Stretcher, Stretcher to transport patients, Clinical cart, Cradle, Footstool, Lamp of procedure, Overbed table, Light box, etc.	Quantity of assets	N° assets breakdown according to availability at emergency unit	Biannual	198	81
Control use of assets to support diagnosis	Use of diagnosis support	Asset use / asset capacity	Monthly	NI	NI
Control availability and use of cots, wheelchairs and beds	Use (cots, wheelchairs, beds)	Asset use / asset capacity	Monthly	NI	100%
Minimize non-available equipment	Non-available equipment	N° of non-available equipment / N° of equipment	Monthly	0	0%
Ensure minimum staff endowment	Staff endowment per shift (physicians, nurses, paramedic and others)	N° of staff members per available emergency unit	Monthly	23	25
Minimize absenteeism rate	Absentee rate (physicians, nurses, paramedic and others)	Hours of medical leave / (Work schedule x N° workers Emergency unit)	Monthly	1.8%	0%
Minimize staff overtime rate	Weekly overtime work rate (physicians, nurses, paramedic and others)	N° of workers that worked over 48 hours per week / (N° of weeks x N° of full time workers)	Monthly	17%	25%
Subcategory: Demand					
Control occupation rate	Average daily census	N° of patients per day at emergency unit	Daily	158	184
Control morning patient rate	Patient rate per morning	N° of patients admitted in shift from 08:01 to 14:00 / Total patients in 24hrs	Daily	36%	31%
Control evening patient rate	Patient rate per evening	N° of patients admitted in shift from 14:01 to 20:00 / Total patients in 24hrs	Daily	41%	40%
Control night patient rate	Patient rate per night	N° of patients admitted in shift from 20:01 to 08:00 / Total patients in 24hrs	Daily	23%	29%

Table 3. Key Performance Indicators for April 2016 from a medium size children hospital and a medium size clinic (continued)

Category 5: Outcome indicators					
Subcategory: Effectiveness					
Objective	Indicator	Metrics	Frequency	Children Hospital	Medium Size Clinic
Control number of hospitalized patients	Rate of hospitalized patients	N° of hospitalized patients / N° total patients	Monthly	9%	23%
Control number of discharge patients	Discharged patients	N° discharged patients/ N° total patients	Monthly	91%	63%
Minimize total withdrawal rate	Total abandonment rate	(N° admitted patients - N° patients discharged/ referred/ hospitalized)/ N° total admitted patients	Monthly	22%	23%
Minimize withdrawal rate after triage	Total abandonment rate after triage	(N° triage patients - N° discharged patients) / N° total triage patients	Monthly	21%	21%
Control number of referred patients	Rate of referred patients	N° referred patients / N° total patients	Monthly	0%	14%
Minimize short-term mortality	Short-term mortality, after visit to the ER	Short term mortality (7 days)after an emergency visit	Monthly	NI	NI
Subcategory: Patient Satisfaction					
Increase patient satisfaction	Average patient satisfaction rate	Average of satisfaction surveys answered/N° total of patients surveyed	Monthly	NI	NI

Note: NI (no information) is information that at the time of the application in the ED was collected either by other departments and it was not available or never collected.