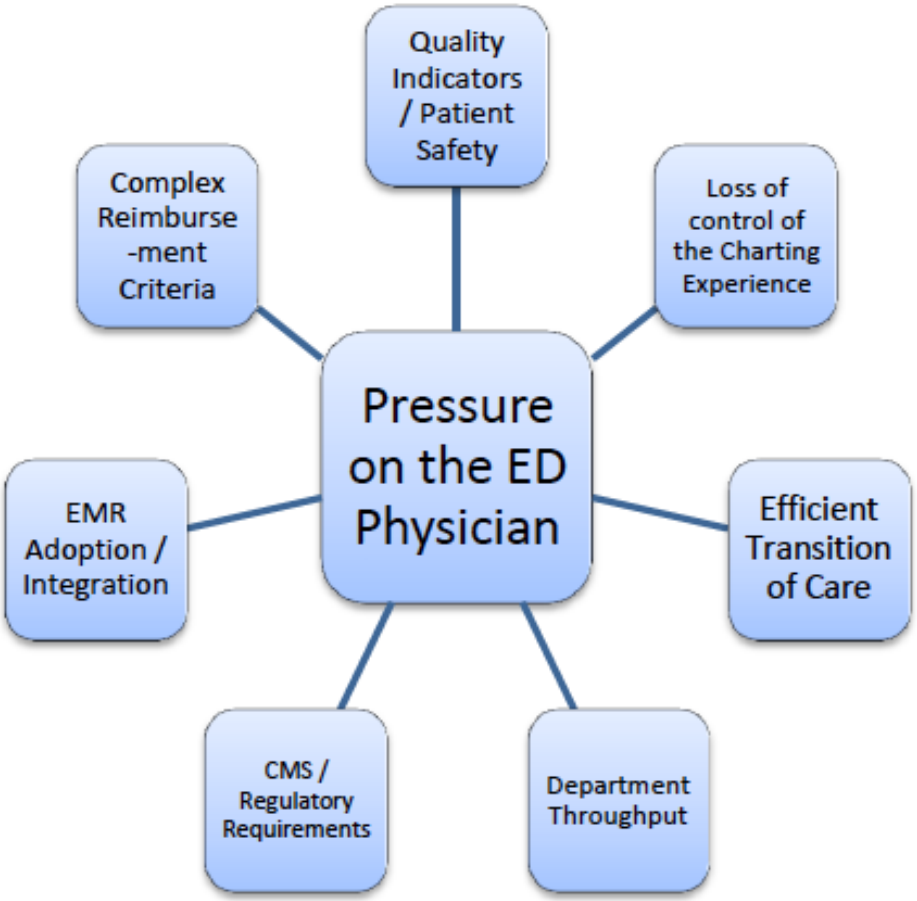
I Sistemi di Gestione dell'Attività in Pronto Soccorso

Alessio Bertini
Livorno

x congresso nazionale
simeu
NAPOLI 18-20 NOVEMBRE 2016

Gestione del Pronto Soccorso



EMERGENCY MEDICINE CASES

Bringing you Canada's brightest minds in Emergency Medicine

Given last year's influential Rand report, titled "The Evolving Roles of Emergency Departments in the United States" (which stressed the critical role EDs play in facilitating or preventing hospital admissions); the "Integrated Networks of EM Care" models/literature; and the increasing role of EDs as diagnostic centres for complex patients and co-ordinators of community care/followup and as a hub resource for telemedicine and digital access to acute-care decision-making, EPs do a lot more these days than just take the next chart off the top of the pile to be seen — which is what PPH reflects.

Twenty-four-hour clinical decision unit pathways, observations units, more sophisticated approaches to elderfriendly EDs, managing boarded in-patients, managing consulting residents and staff, and managing managers all affect our PPH speed.

Dr. David Petrie is an emergency physician and trauma team leader at the QEII Health Sciences Centre in Halifax, Nova Scotia. He is the Professor and Head of the Dalhousie Dept EM, and Chief of the Central Zone EDs. David's primary academic interest include the teaching and assessment of critical thinking in medical education and the application of complexity science to Health System Design.

Agenda

- ✓ Strumenti
- ✓ Processo/Valore
- ✓ Efficienza
- ✓ Rischio Clinico
- ✓ Qualità

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Dashboard | Emergency Department | Patient Detail

Patient Flow Explorer

Current Selections

Search

35,423 of 35,423 encounters selected

Event Date

2009	2010	2011
Q1	Q2	Q3	Q4
01	04	07	10
02	05	08	11
03	06	09	12

Year-Month
Week Start
Day

Weekday

Mon | Tue | Wed | Thu | Fri | Sat | Sun

Location

Location
Department

Patient Type

- Emergency
- GRAN Outpatient
- Inpatient
- Observation
- Outpatient
- Recurring
- Same Day Surgery

ICD Diagnosis & Procedure

ICD Diagnosis Code
ICD Diagnosis
ICD Procedure Code
ICD Procedure
ED Encounter Reason
OR Procedure

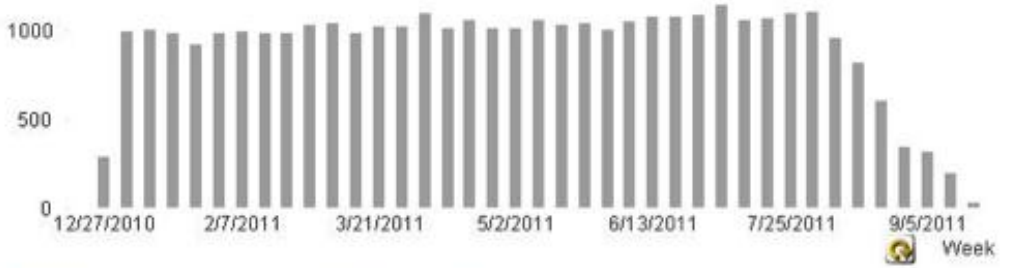
Include suspect data

Discharges

35,430

- Admits
- Discharges
- Deaths
- LWBS
- Trauma Patients
- Diversions
- Hospital Admit %
- Avg. Daily Census

Volumes over Time

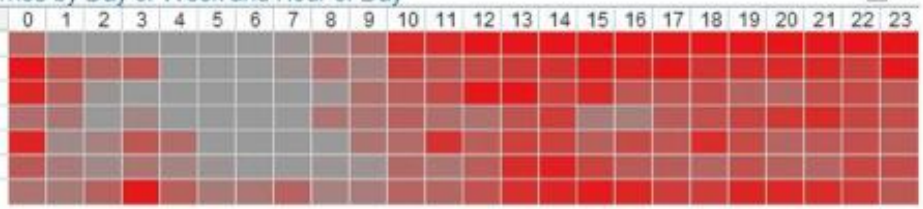


Avg. Arrival to Room

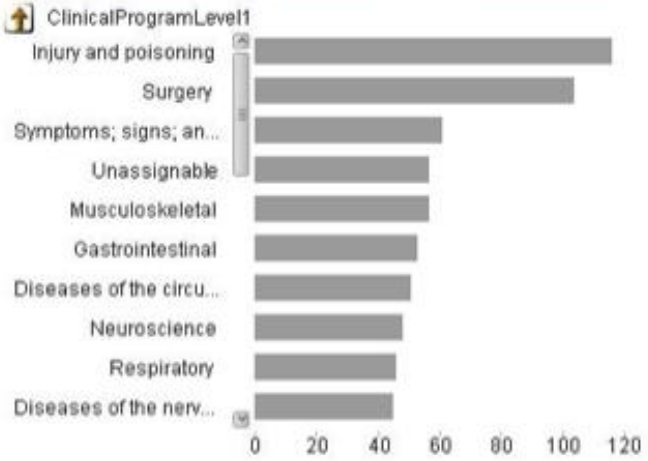
22 Min.

- Total ED LOS
- Arrival to Room
- Room to Disposition
- Disposition to Departure

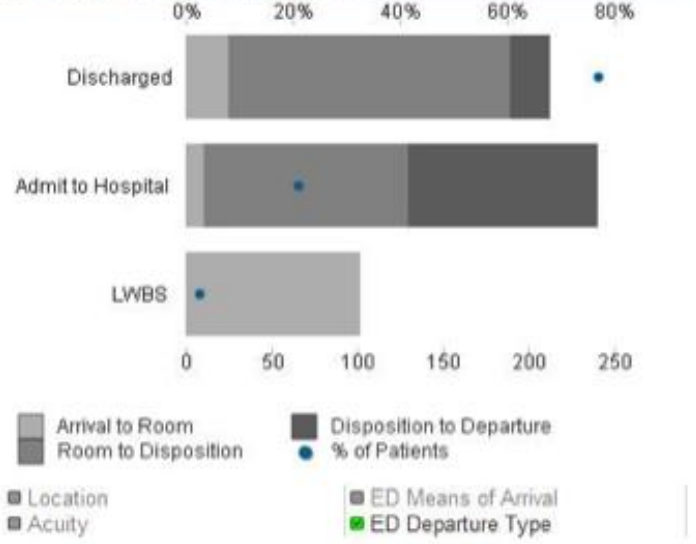
ED Wait Times by Day of Week and Hour of Day



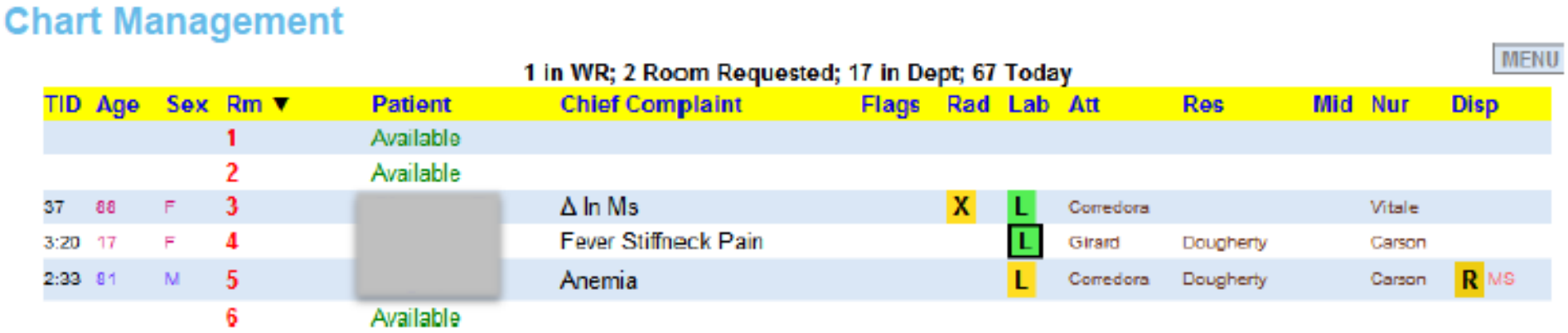
ED Visits by Clinical Program



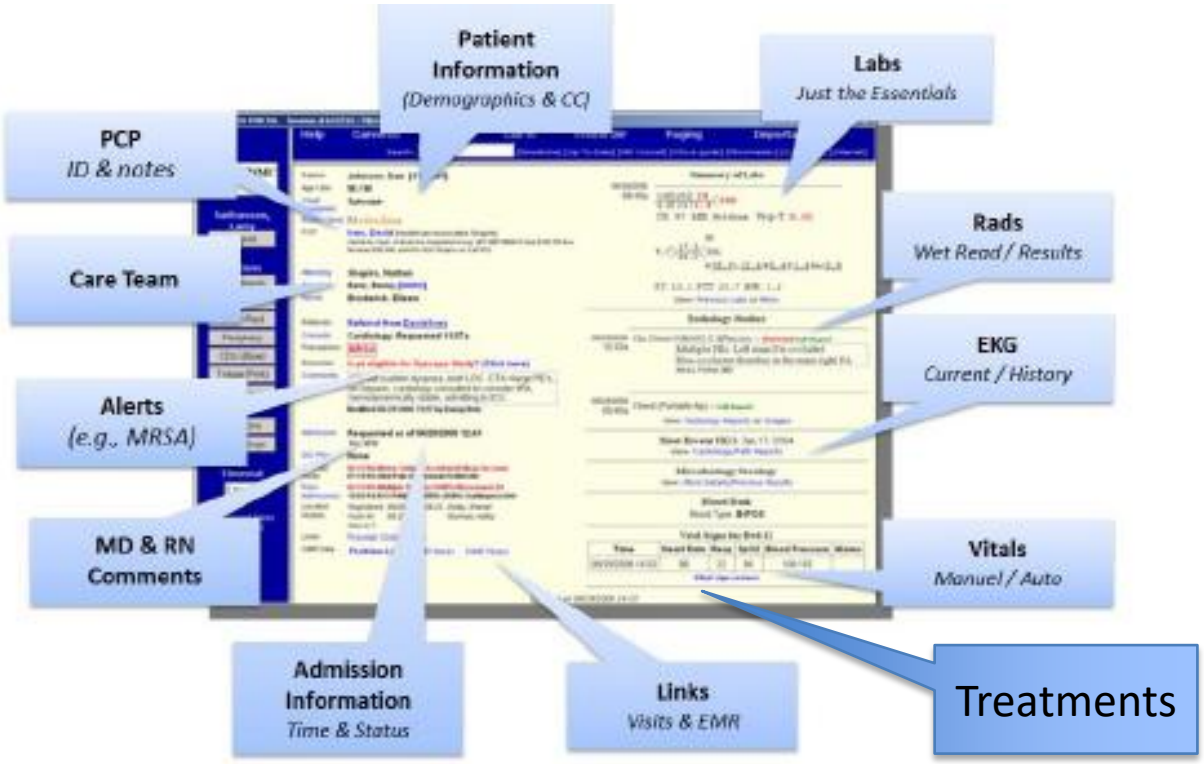
ED Length of Stay Comparisons



Informazioni



Informazioni



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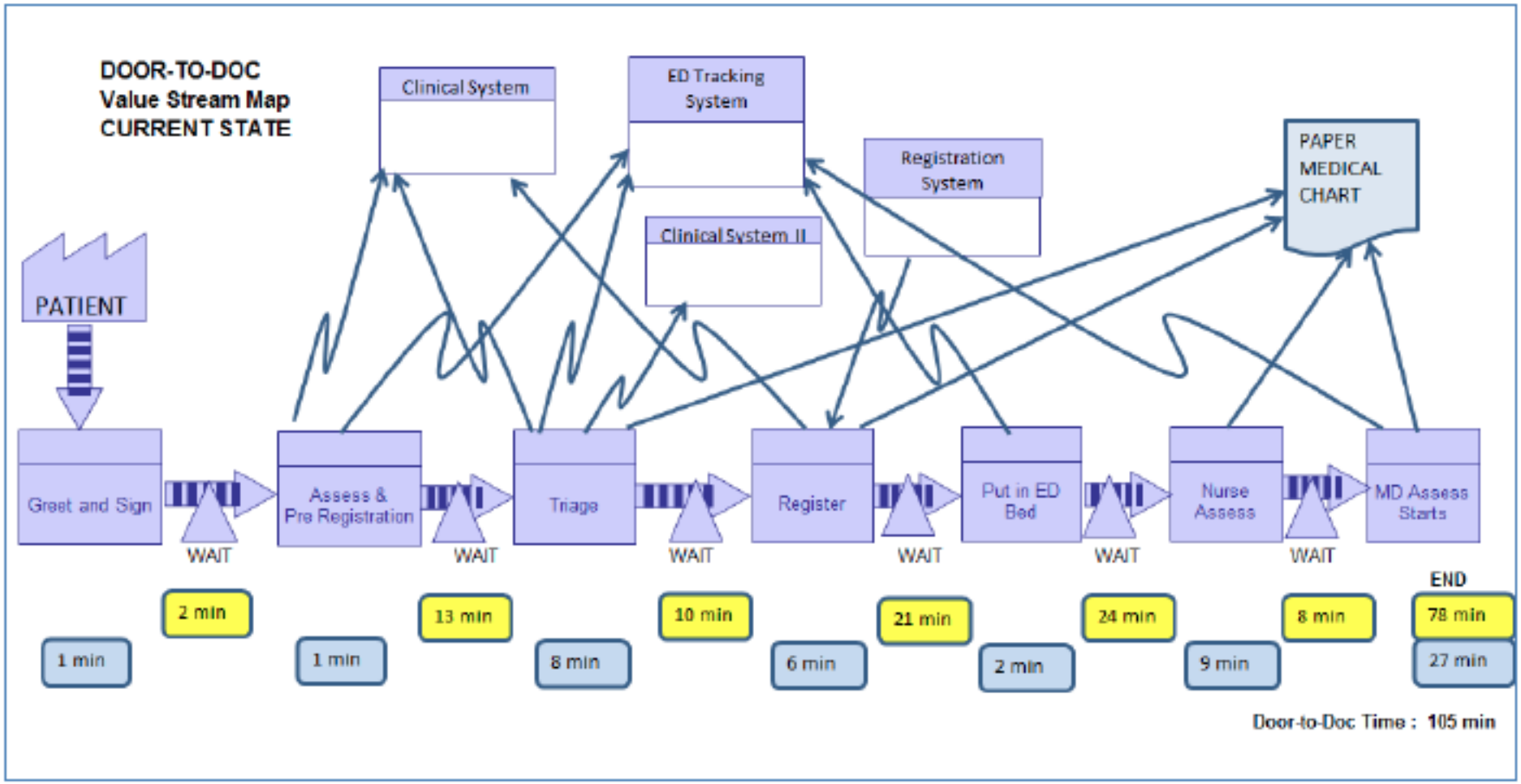
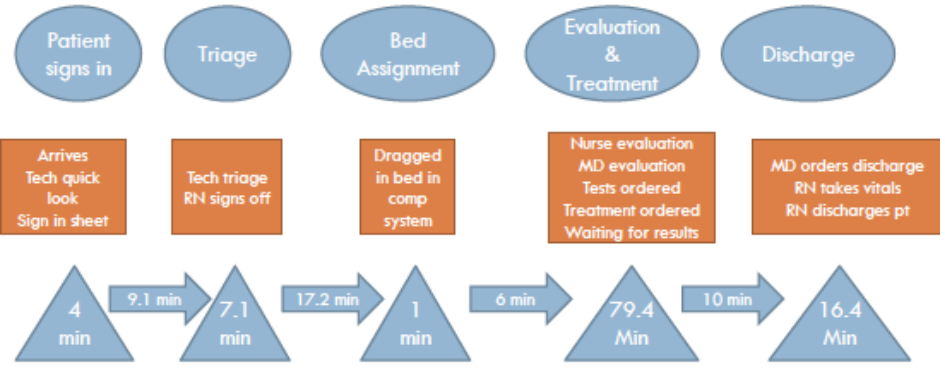
Sample Current Value Stream Map



How do Value Stream Maps Help?

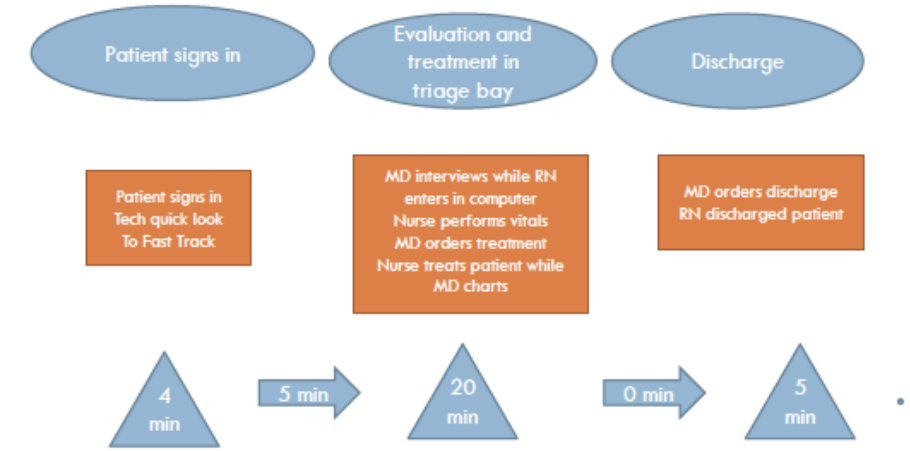
- VSM of an ED in Virginia of a patient with an ankle sprain….



So…. A simple ankle sprain

In the ED for 151 minutes!!

After Value Stream Map & Process Change



Now…an ankle sprain

- In and out of the ED in 34 minutes!!
- No change in staffing, just a change in PROCESS!!

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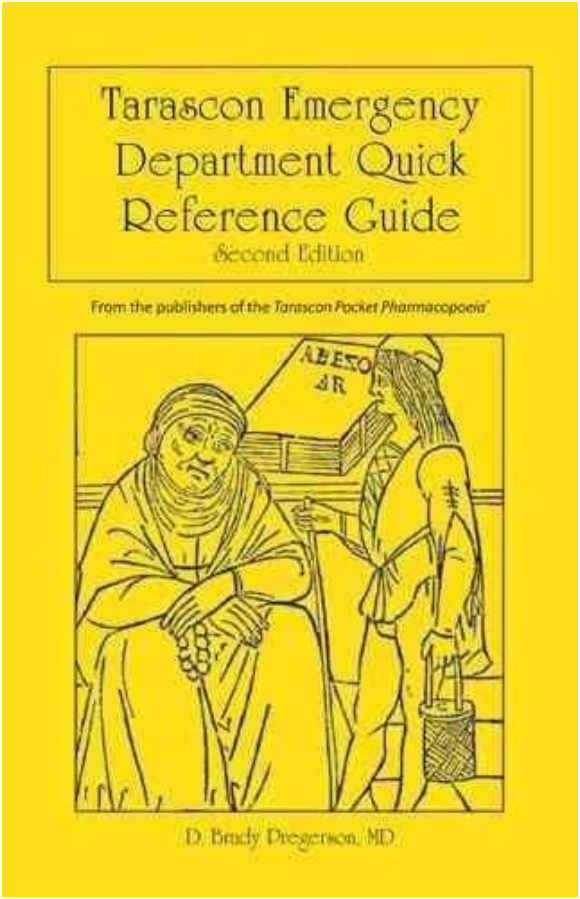

Emergency Department Benchmarking Alliance Releases 2014 Data on Staffing, Physician Productivity

January 15, 2016 by James J. Augustine, MD, FACEP

ED TYPE	NURSE STAFF	TECH/CLERK STAFF	PHYSICIANS	PHYSICIANS + APPs
All EDs (N=1,137)	0.62	1.7	2.48	1.97
Under 20K volume	0.56	1.6	1.4	1.3
20–40K	0.66	2.0	2.7	2.1
40–60K	0.62	1.7	2.9	2.2
60–80K	0.61	1.4	3.1	2.4
80–100K	0.60	1.4	3.1	2.4
Over 100K volume	0.65	1.2	3.1	2.4
Pediatric EDs	0.62	1.9	2.4	2.0
Adult EDs	0.56	1.3	2.8	2.2

(click for larger image) Table 1. Patients Seen Per Hour in the EDBA Data Survey for

1. Wiler JL, Welch S, Pines J, et al. **Emergency department performance measures update**. *Acad Emerg Med*. 2015;22(5):542-553.

Emergency medicine provider efficiency: the learning curve, equilibration and point of diminishing returns

Rade B Vukmir,[1] Randy N Howell[2]

Emerg Med J 2010;**27**:916–920. doi:10.1136/emj.2009.079194

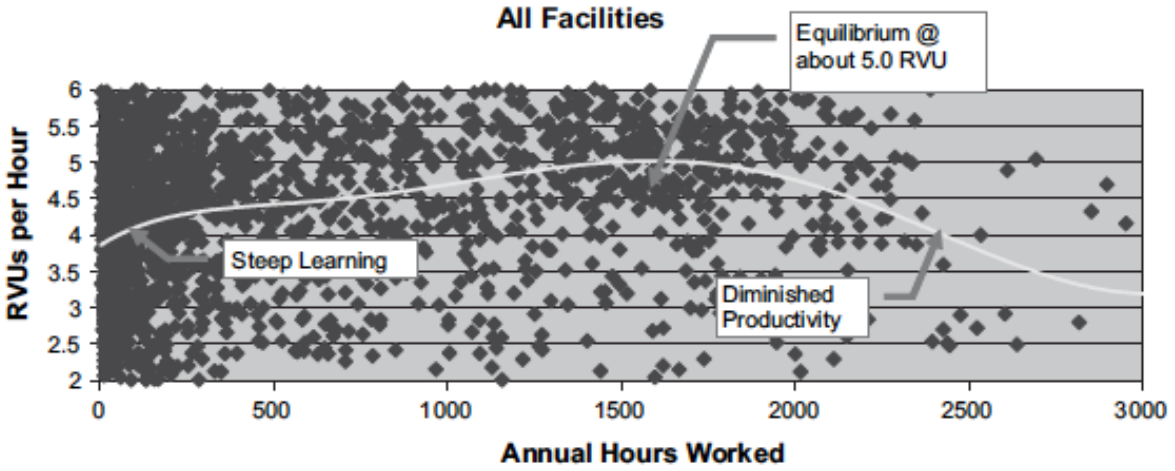

Figure 2 Overall physician productivity measured as relative value unit (RVU) per hour compared with annual workload. Regression correlation (R^2=0.084, $p<0.05$).

Regression Correlation ($R^2 = 0.084$, $p < 0.05$)

Table 2 Data summary of patient visits versus hours worked subdivided by practice site size

Annual volume	Practioners (n)	Facilities (n)	Clinical hours	Patient visits	Total RVU	PPH, mean±SD
To 15 K	143	12	178 139	192 099	469 363	1.2198±0.30362
15–30 K	325	27	503 478	882 588	2 249 359	1.7247±0.37222
30–45 K	267	15	374 647	705 069	1 935 806	1.7343±0.39492
45+ K	177	7	296 021	625 077	1 670 770	2.0738±0.32434
Total	912	61	1 352 285	2 404 833	6 325 298	
Mean						1.7161±0.43949
ANOVA						$p<0.001$

ANOVA, analysis of variance ($p<0.05$); PPH, patients per hour; RVU, relative value unit.

Pazienti/ora/diagnosi

- Inutile o comunque poco utilizzabile per confrontare PS diversi
- Utile all'interno delle singole strutture
  - Confronto ***anonimo*** tra i professionisti
  - Incentivi
  - Formazione su specifici percorsi

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Boarding

Table 4: Current State Map Tasks

ED Admitted Patients: Decision to Bed (14 tasks)	*Discharged Patients: Decision to Bed Ready (8 tasks)*
Physician decides to admit	Physician writes discharge order or patient dies
Physician tells RN	RN initiates discharge
RN gives stat sheet to the ward clerk (WC)	Patient leaves
WC enters admission into EDIS and gives the stat sheet to registration clerk (RC)	WC notified and chart is dismantled. Bed entered in bed book for cleaning or housekeeping paged if "STAT"
RC has patient sign admission forms	Bed is cleaned and recorded in bed book
RC or admitting clerk enters the information into STAR (admission, transfer, discharge information system)	Discharge is entered in STAR this triggers "empty bed"
Bed assigned or if no bed available patient placed in a virtual bed in STAR.	Notice prints in registration and ED
Bed entered in EDIS by RC or admitting clerk.	Bed assigned by: RC or bed manager on days, on evenings the inpatient clerk calls nurse manager, and on night's bed is assigned by the ED clerk and clinical leader
RC calls unit with admit information and available bed displayed in EDIS	
ED RN prepares patient for transfer (medications, chart, and old chart).	
5-10 mins after faxing ED RN calls floor to clarify information.	
ED RN prepares patient for transfer (medications, chart, and old chart).	
30 mins later porter called to transfer patient	
Patient transferred to inpatient unit.	

Work Flow Analysis of Admitted Patients

Author:
Cheryl Stephens-Lee, RN, BscN

CJNI Volume 1 Number 2 Summer 2006 – Stephens-Lee, Workflow Analysis of Admitted Patients

Quality and Safety Implications of Emergency Department Information Systems

Heather L. Farley, MD; Kevin M. Baumlin, MD; Azita G. Hamedani, MD, MPH; Dickson S. Cheung, MD, MBA; Michael R. Edwards, MD; Drew C. Fuller, MD, MPH; Nicholas Genes, MD, PhD; Richard T. Griffey, MD, MPH; John J. Kelly, DO; James C. McClay, MS, MD; Jeff Nielson, MD, MS; Michael P. Phelan, MD; Jason S. Shapiro, MD; Suzanne Stone-Griffith, RN, MSN; Jesse M. Pines, MD, MBA

[Ann Emerg Med. 2013;62:399-407.]

- communication failure
  - Prescrizioni di farmaci e loro dosaggio
- poor data display
  - Segnalazione attiva dei risultati
  - Alert in caso di valori critici
- wrong order/wrong patient errors
  - Mostrare il numero di postazioni, età sesso, problema principale e se possibile anche una immagine del paziente può aiutare ad evitare questo tipo di errore
- alert fatigue
  - Alert automatici sulle interazioni tra farmaci, sulle allergie segnalate, sui volumi di liquidi, etc.

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Part II – Frequent ED Users: Transitioning from Volume to Value

Categories	Most Common Scenarios	Payer	Typical Engagement Focus
Convenience Visitors	No PCP or unavailable PCP No time to wait despite high co-pay	Medicaid Private pay	• Improve PCP linkage, encourage prudent ED use • Recommend urgent care for minor emergencies
Substance Users	Narcotic seekers Alcohol-related	All payers Uninsured	• Use state database, deny narcotic prescriptions • Encourage family support and rehabilitation
Psychiatrically-Fragile	Psychoses – homeless Neuroses – anxiety, borderline PD	Uninsured Private pay	• BH specialist linkage, family oversight • Reassurance, psychologist referral for CBT
Medically-Fragile	Asthma/COPD, Cancer, CAD/CHF, CVA/Dementia, DM, ESRD, Paralysis	Medicare Private pay	• Individualized care plan, nurse navigator, high-risk clinic, caregiver education, end-of-life plan

A Seven-Step Solution

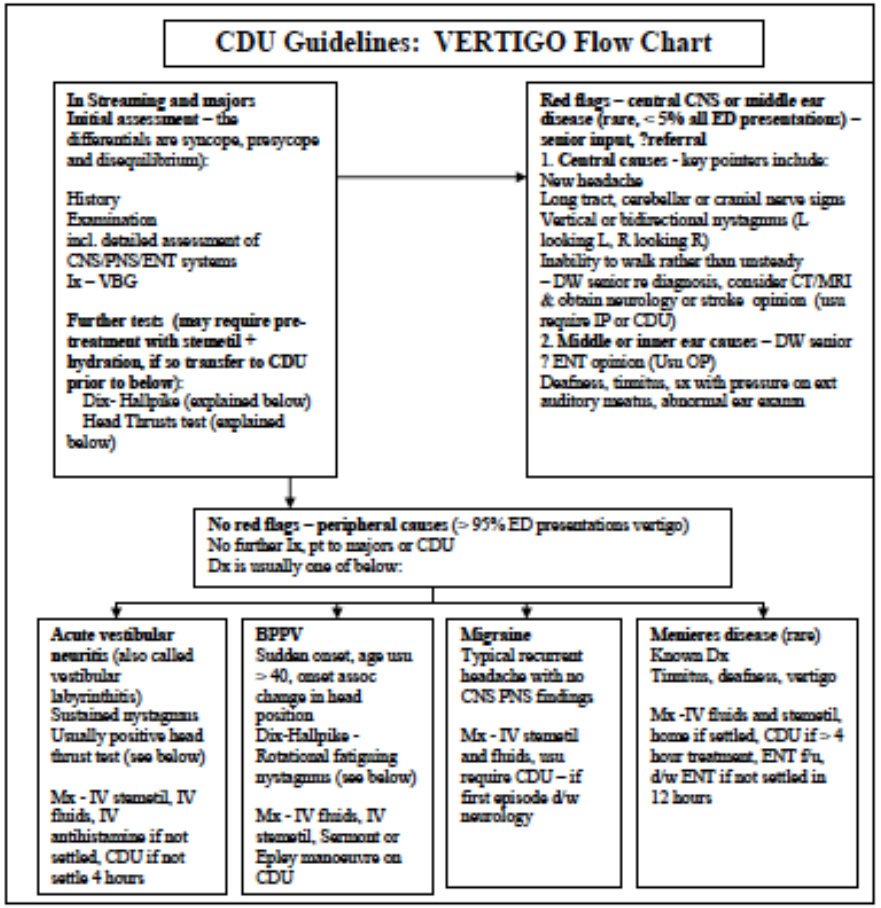
1. Identify Frequent Utilizers, analyze visit patterns an
2. Engage frequent users, develop care plans
3. Flag Care Plan Cases on the ED tracker so that staff can heed recommendation and periodically update the care plans
4. Recruit Providers such that all primary care physicians, psychiatrists and specialists
5. Engage Family
6. Automate Workflows with software to track frequent utilizers, facilitate engagement, simplify care plan enrollment and update the “care network”
7. Measure Success

Pathways Informatizzate

Barts Health NHS
NHS Trust

STANDARD OPERATING PROCEDURE FOR PATIENTS PRESENTING WITH VERTIGO

TRUST CORE GUIDELINES	
REVIEW:	2015
APPROVAL/ADOPTED :	
DISTRIBUTION :	Emergency and Acute Medical Services
RELATED DOCUMENTS :	Vertigo Flow Chart/Guidelines
AUTHOR/FURTHER INFORMATION:	Tim Harris, Prof Emergency Medicine,
THIS DOCUMENT REPLACES :	New guideline



HealthCatalyst
ignite outcomes improvement

How to Significantly Reduce Sepsis Mortality

FIGURE 1: SAMPLE SEPSIS EXECUTIVE SUMMARY VISUALIZATION

1. Filters (e.g., discharge date range, elements of three-hour bundle, etc.)
2. Summary measures (e.g., mortality rate, LOS, average variable costs, etc.)
3. Trended discharges
4. Trended three-hour bundle compliance
5. Trended overall compliance
6. Impact of non-compliance to the three-hour bundle

Figure 1: Sample sepsis executive summary visualization

Grazie.

alessio.bertini@yahoo.it