

Rumah Sakit sebagai “Highly Reliable Organization” contoh dari pelayanan ICU

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Presenter disclosures

- ❖ No financial relationship or commercial interests to disclose
- ❖ Not Hospital Manager
- ❖ No educational or training on managerial
- ❖ No carrier in managerial
- ❖ Pure clinician

High Reliability Organization

Organizations that have the potential for catastrophic failure yet engage in nearly error-free performance.

Aircraft carriers

Electrical power grids

Wildland firefighting

The essence of high reliability organizing is a set of principles that enable organizations to focus attention on emergent problems and to deploy the right set of resources to address those problems

Christianson. Critical Care 2011,15:314

High reliability organizing is characterized by five key principles that facilitate both problem detection and problem management

1. Preoccupation with failure: using failure and near failure as ways to gain insight into the strengths and weaknesses of the system
2. Reluctance to simplify: avoiding the tendency to minimize or explain away problems
3. Sensitivity to operations: being aware of the 'big picture', specifically how all the components of work fit together and how problems in one area can spread to other areas. For problem management, high reliability organizing involves
4. Resilience: developing the capability to cope with unexpected events
5. Deference to expertise: understanding where the expertise is in the organization and ensuring that decisions about how to deal with problems are made by those experts. By enacting these principles in a set of daily processes and practices, HROs repeatedly and continually shape and reshape a binding safety culture

Christianson. Critical Care 2011,15:314

Principles of high reliability organizing applied to the intensive care unit

Principle

Examples of ICU applications

Preoccupation with failure

Establish immediate post-code debriefings.
Include likely mechanisms of each patient's decompensation in sign-out rounds.
Engage in regular performance benchmarking.
Encourage blameless reporting of near failures and failures.
Use detailed analysis of incidents and errors for potential improvements in processes.

Reluctance to simplify

Be aware of cognitive bias in diagnosis and work to avoid premature diagnostic closure.
Maintain and revisit broad differential diagnoses.
Use multidisciplinary analyses as a basis for decision making.
Resist the tendency to ascribe only one cause to incidents and errors.

Sensitivity to operations

Maintain awareness of the patient's overall condition rather than focus on one particular problem or organ system.
Use tools that facilitate information sharing between team members (that is, electronic medical records).
Monitor unit-wide and hospital-wide conditions, such as bed availability, personnel shortages, and unit acuity fluctuations.

Resilience

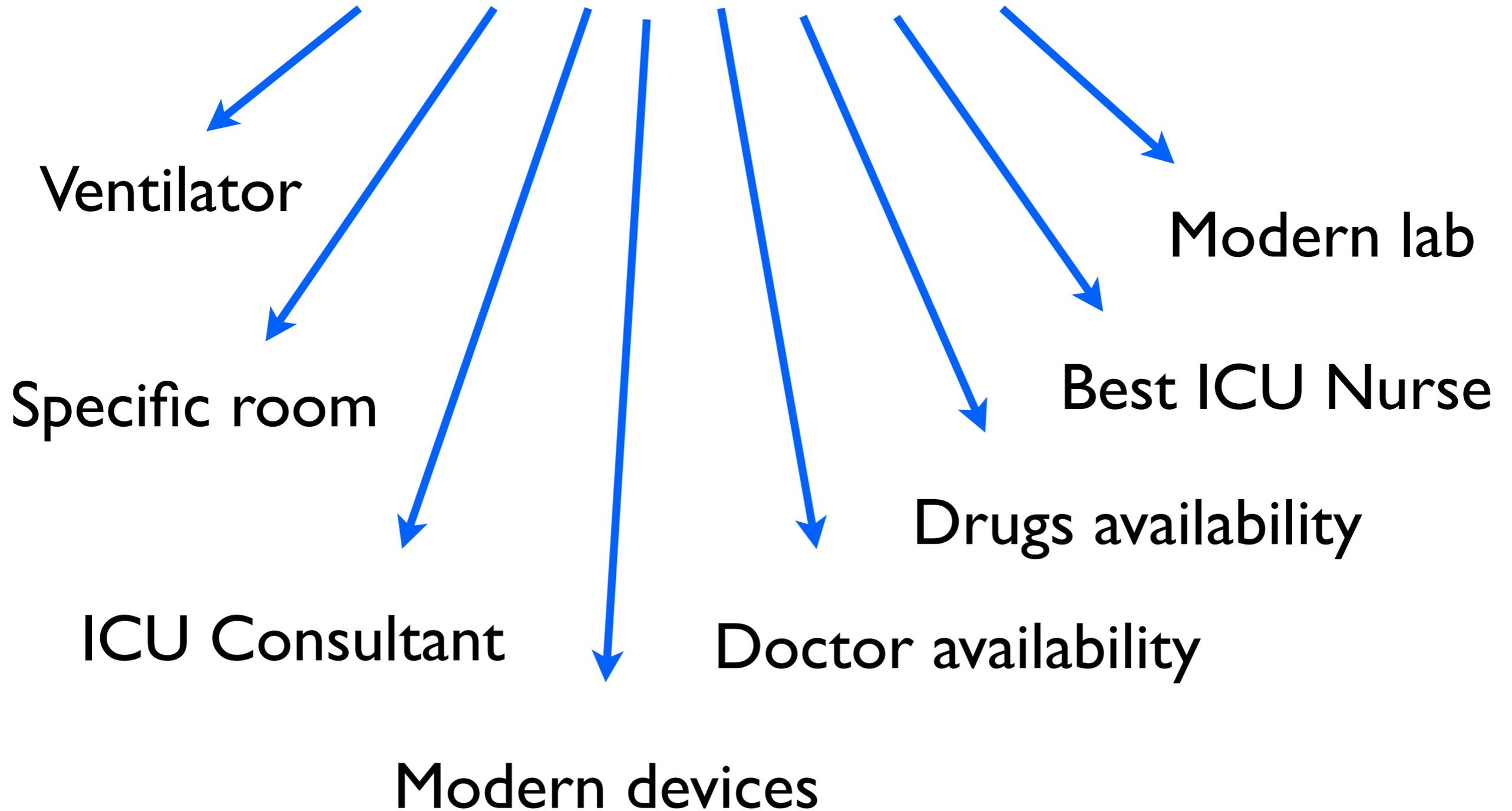
Emphasize the importance of working together in multidisciplinary teams.
Encourage flexibility in team members to accommodate changes in unit acuity or hospital resources.
Explicitly include training around how to manage unexpected events in ICU staff educational training.

Deference to expertise

Foster knowledge of team members' particular strengths and weaknesses, including specialized services (that is, ability to manage a balloon pump).
Use appropriate clinical pathways and protocols (that is, nursing-driven sedation and respiratory therapist-led weaning protocols).
Institute multidisciplinary rounds on which nursing, respiratory therapy, pharmacy, and families have active voices and full participation.

What is an ICU ?

What is an ICU ?



*A dedicated area for managing critically ill patients while preventing future deterioration, delivering high level quality care, in which all monitoring and therapeutic devices required are immediately available, together with a large, **multidisciplinary**, highly specialised team of professionals, with a high nurse-to-patient and physician-to-patient ratio*

Moreno. Organisation and Management of Intensive Care 2010

*Suatu bagian dari rumah sakit yang mandiri
(instalasi dibawah direktur pelayanan)
dengan staf yang khusus dan perlengkapan yang khusus
yang ditujukan untuk observasi, perawatan
dan terapi pasien-pasien yang menderita penyakit,
cedera atau penyulit-penyulit yang mengancam nyawa
atau potensial mengancam nyawa dengan prognosis dubia.
ICU menyediakan kemampuan dan sarana, prasarana
serta peralatan khusus untuk menunjang fungsi-fungsi vital
dengan menggunakan ketrampilan staf medik,
perawat dan staf lain yang berpengalaman
dalam pengelolaan keadaan tersebut.*

Pedoman Penyelenggaraan Pelayanan ICU KEMKES 2010

ICU ≠ PRE MORTUARY ROOM

ICU ≠ PRESTIGIOUS PLACE FOR DIE

Too sick to benefit

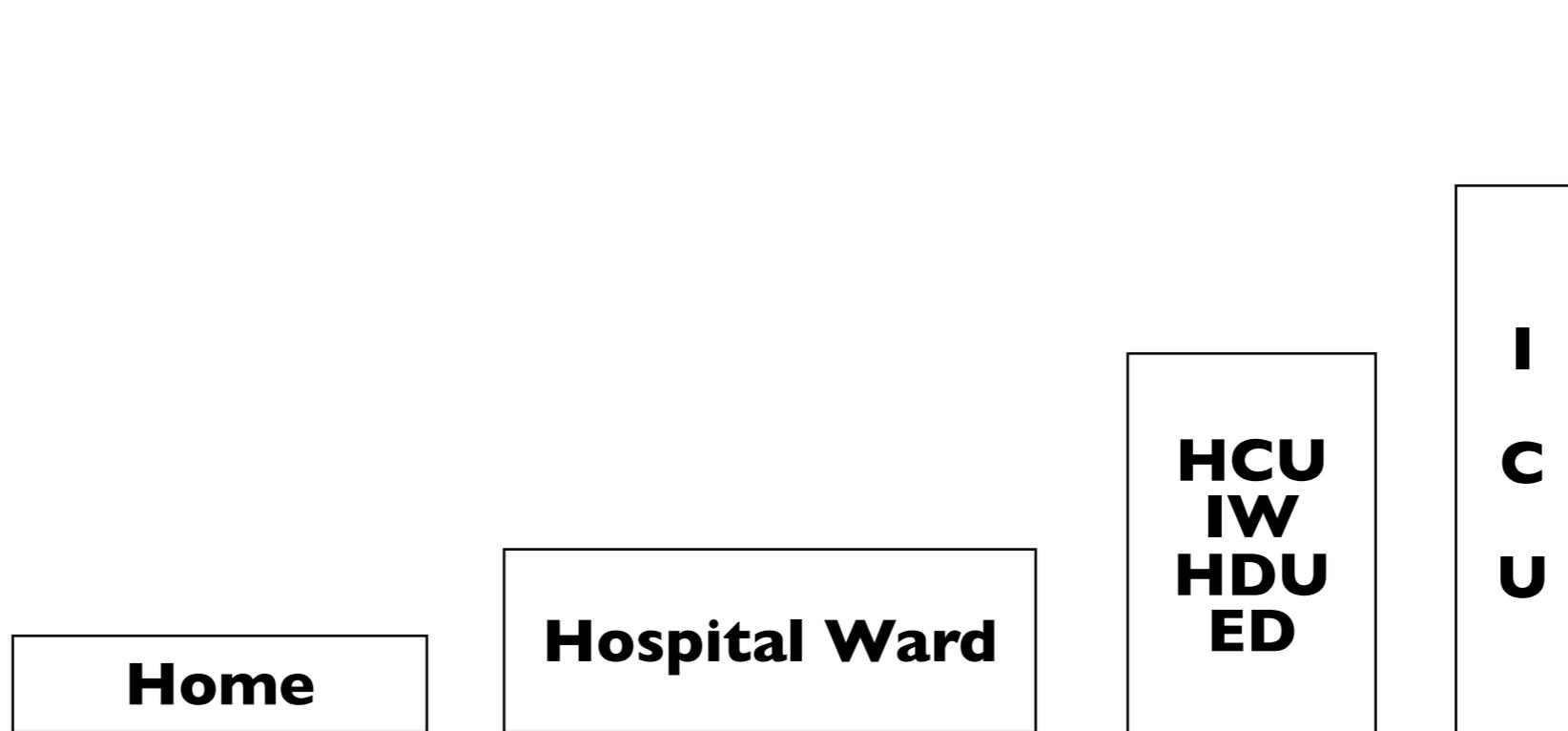
ICU ≠ SAFETY FEELING FROM DOCTOR OR FAMILY

Too well to benefit

End of live care room

Intensity of treatment

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Takala J.25 Years of Progress and Innovation in Intensive Care Medicine.ESICM 2007

Intensity of treatment

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stepwise changes in intensity of treatment and monitoring

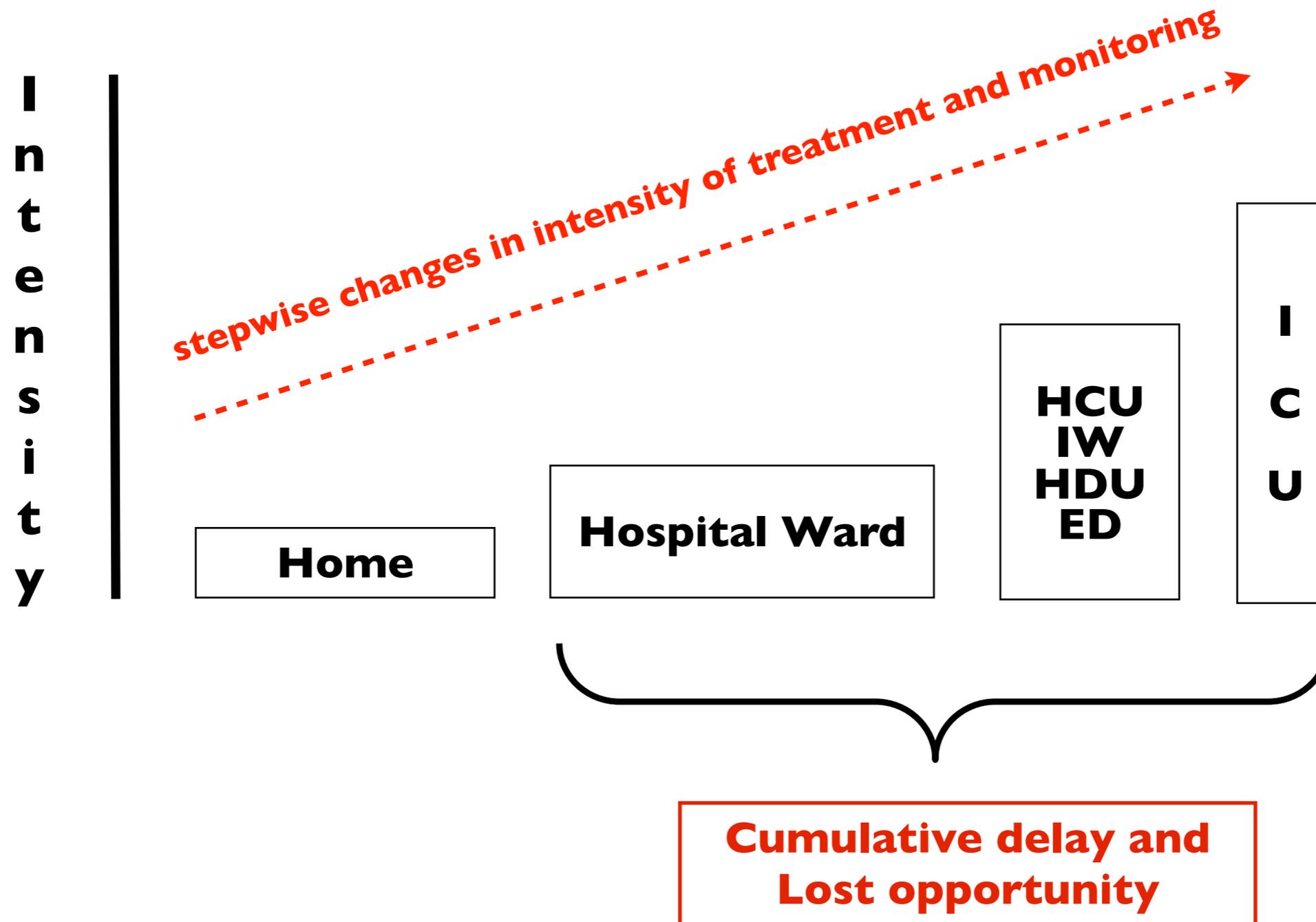
Home

Hospital Ward

HCU
IW
HDU
ED

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Intensity of treatment



Takala J.25 Years of Progress and Innovation in Intensive Care Medicine.ESICM 2007

ICU Leveling

Level 1

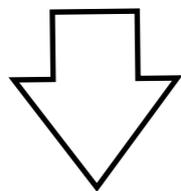
ICU Tersier

Level 2

ICU Sekunder

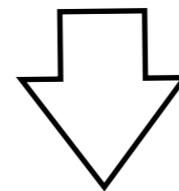
Level 3

ICU Primer



SCCM

JCI Accreditation 2010



Kemkes 2010

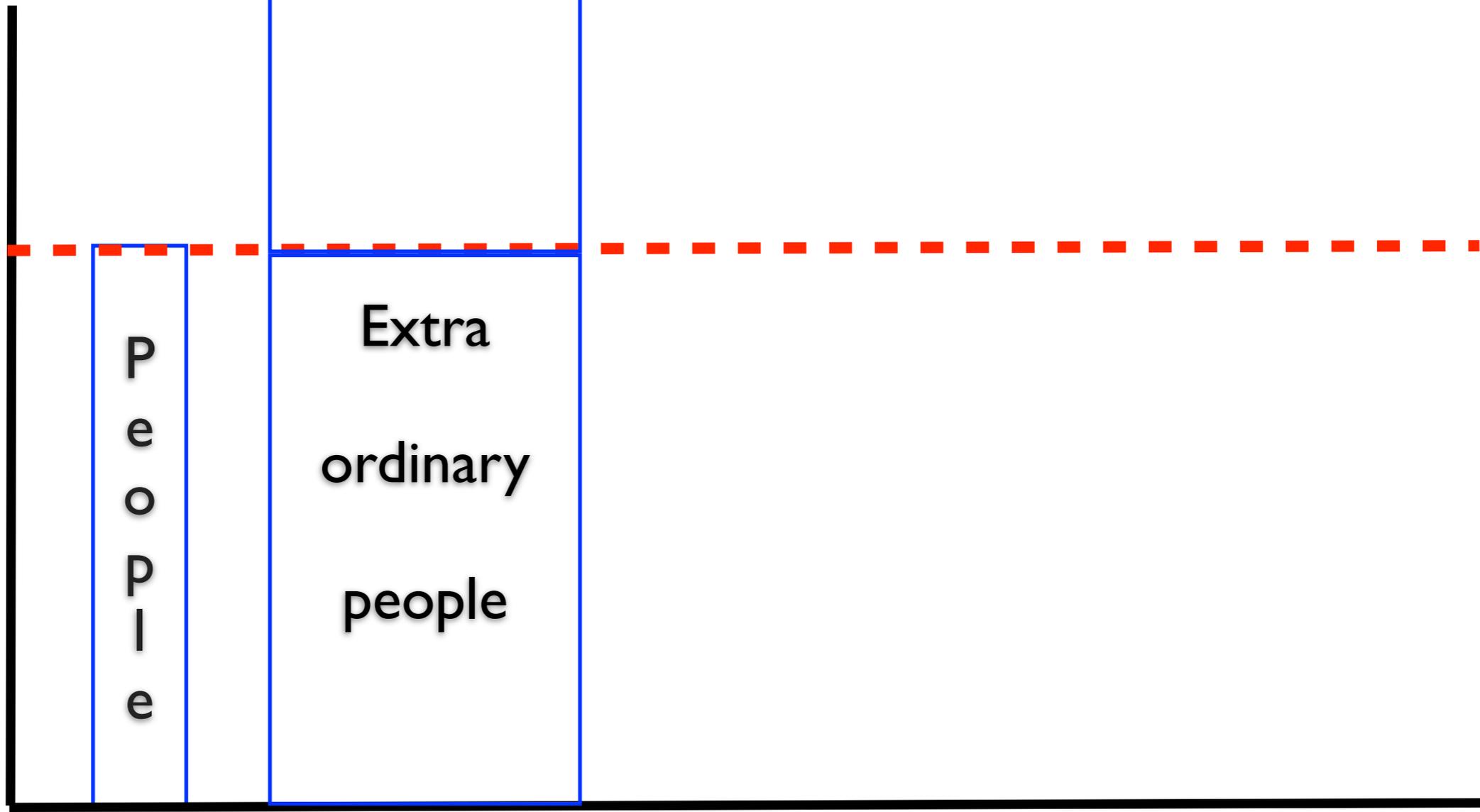
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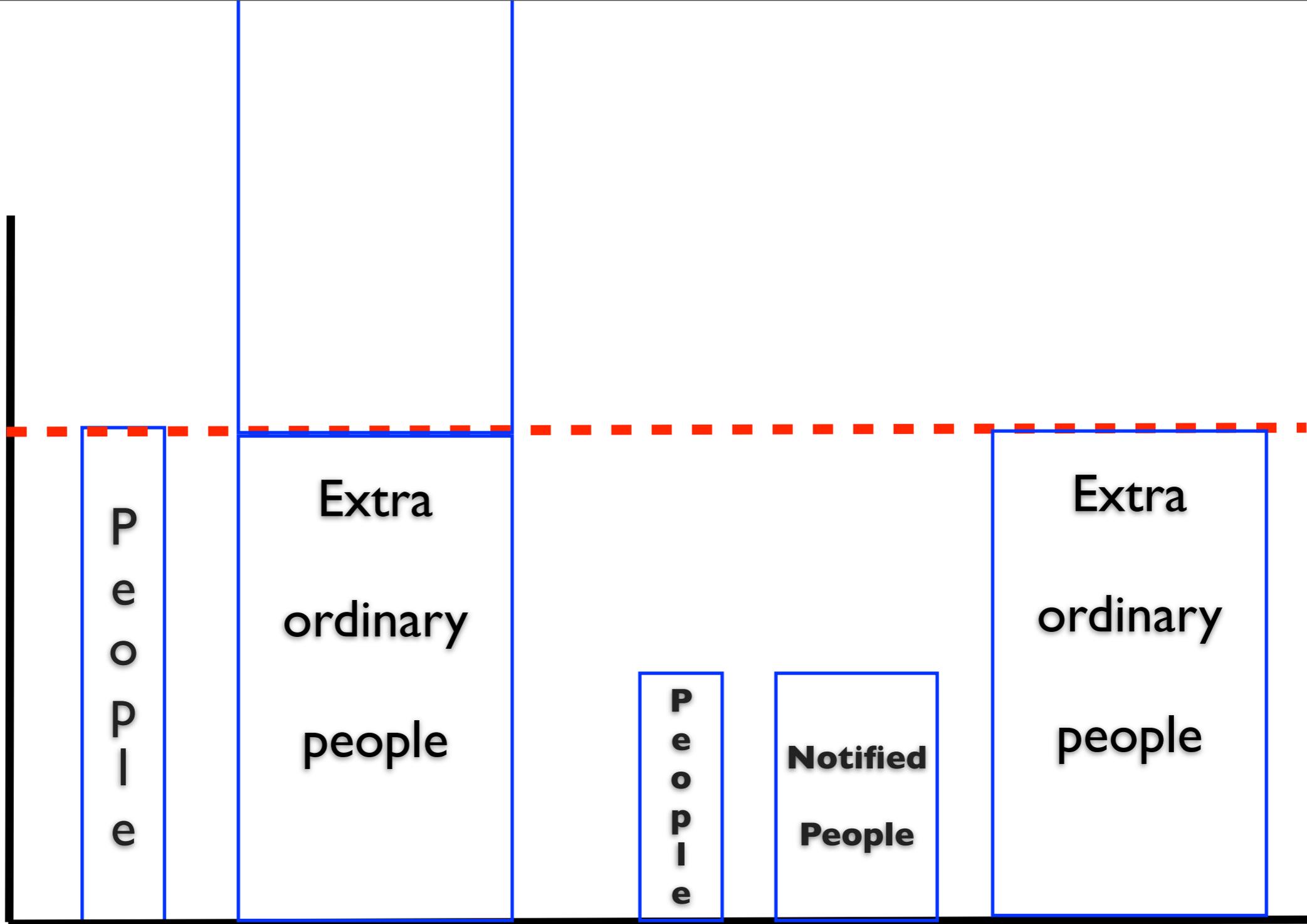
How Professional are you ?

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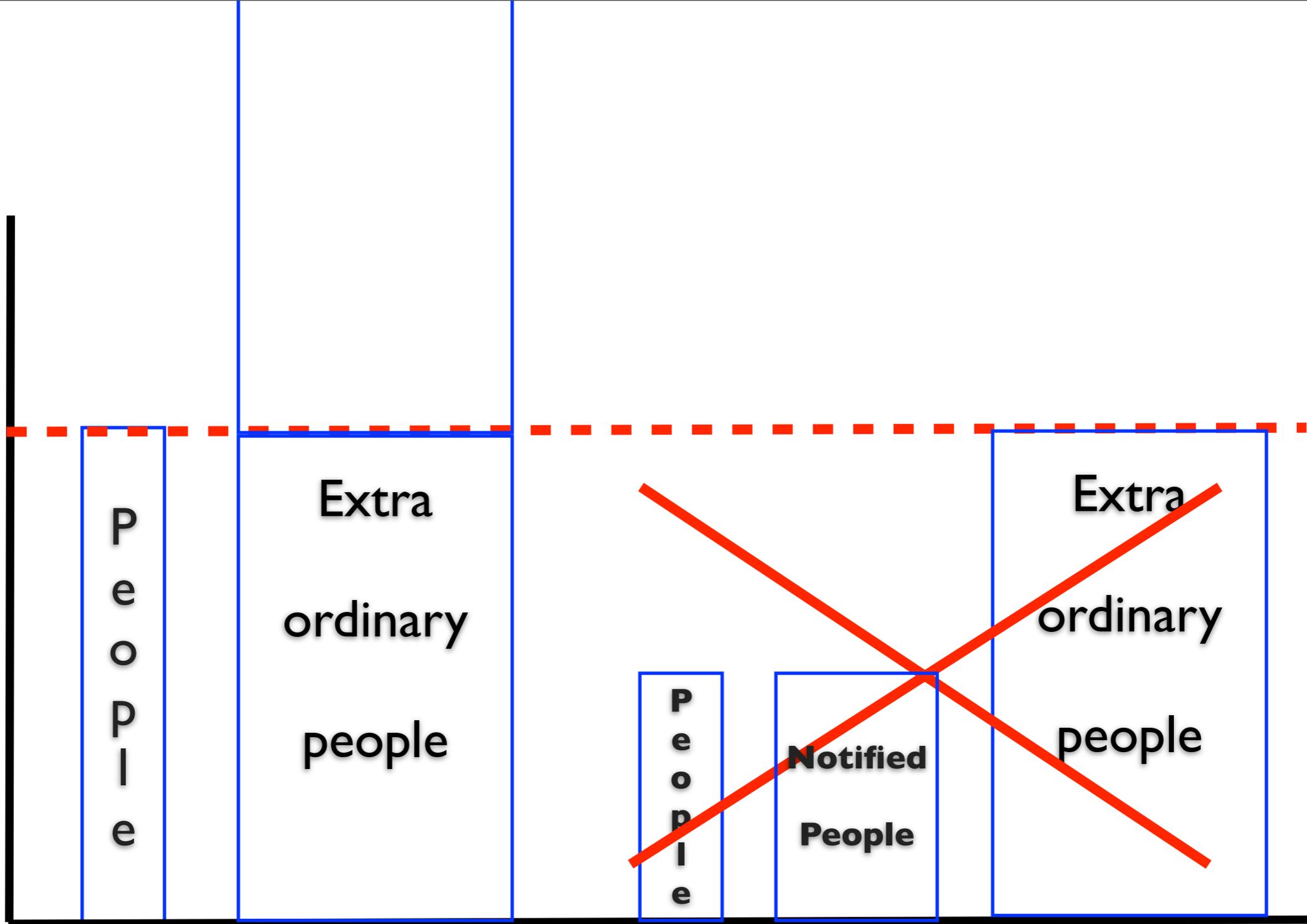
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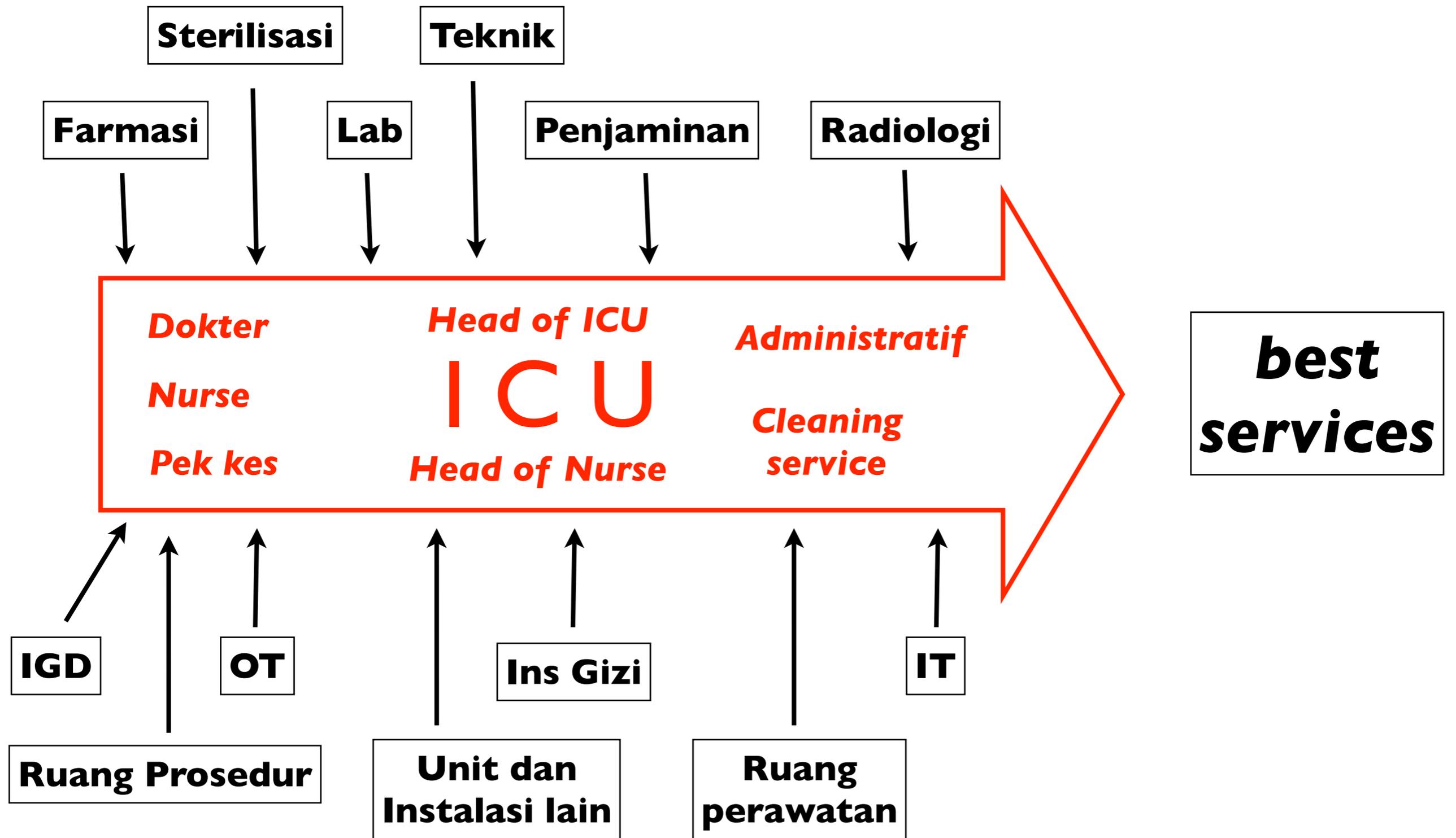


How Professional are you ?

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How Professional are you ?



Internal Process

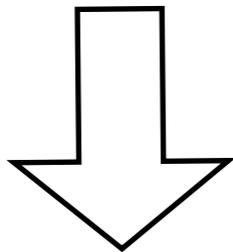
External Process

How to manage an ICU ?



Internal Process

External Process



Open

Closed

Semi Closed

Internal Process

- Improvement quality of care with multidisciplinary team
- Internal audit
- In house training and education
- Standard and protocol
- Key performance indicator
- Professionalism and Communication

Critical Care Practice Model

- **Multidisciplinary Critical Care**
- **Physician Component – The Intensivist**
- **Nursing component**
- **Pharmacy Component**
- **Respiratory Therapy Component**

Brilli. Crit Care Med 2001;29:2007-2019

- **Clinical Nutrition**
- **Clinical Microbiologist**
- **Clinical Rehabilitation**
- **Clinical Pathologist**
- **Radiologist**

Multidisciplinary Critical Care

- Medical and nursing directors with authority and responsibility for ICU management
- Nursing, respiratory therapy and pharmacy collaboration as a team approach
- Use of standards, protocols and guideline to assure consistent approach to patient
- Dedication to coordination and communication for all aspects of ICU management
- Emphasis on practitioner certification, research, education, ethical and patient advocacy

Brilli. Crit Care Med 2001;29:2007-2019

Physician Component – The Intensivist

- Intensivist as the coordinator and leader of the multidisciplinary approach to the care of the critically ill patient.
- Intensivist as full time ICU director and full time dedicated to ICU
- Intensivist coordinated ICU management activities necessary for the safe, efficient, timely and consistent delivery of care

Brilli. Crit Care Med 2001;29:2007-2019

Intensivist responsibility

- Patient triage based on admission and discharge criteria, bed allocation and discharge planning
- Development and enforcement of critical and administrative protocol that are intended to improve the safe and efficient delivery of clinical care and to meet regulatory requirement
- Coordination and assistance in the implementation of quality improvement in ICU

Brilli. Crit Care Med 2001;29:2007-2019

Nursing Component

- Staff nurse, nurse manager, clinical nurse specialist and acute care nurse practitioner.
- Medical staff partnership
- Total care of patient
- Understanding and supporting technical medical care, diagnosis, treatment, care planning and priority setting
- Grading level of ICU nurse and in house training to make quality improvement expertise

Brilli. Crit Care Med 2001;29:2007-2019

Pharmacy Component

- Comprehensive monitoring of medication usage to provide cost effective pharmacotherapy
- Drugs therapy evaluation (prospective or retrospective) to maximize patient outcome
- Critical care satellite pharmacy, dispensing of medication, evaluation of medical order and attending ICU round
- Pharmacists should implement and maintain policies and procedures related to safe and effective use of medications in the intensive care unit.

Brilli. Crit Care Med 2001;29:2007-2019

Clinical Microbiology

- Infection control
- Teaching and training infection control
- Collect specimen for microbiology and resistance
- Antibiotic controlling
- Microbiology and resistance report and evaluation

Clinical Nutrition

- Responsible for nutritional therapy
- Teaching and training nutritional therapy
- Report and evaluation nutritional therapy

ICU daily activity

Time	Monday	Tuesday	Wednesday	Thursday	Friday
06.30-08.00	Intensivist round	Intensivist round	Intensivist round	Intensivist round	Intensivist round
07.30-08.30	Nurse hand over	Nurse hand over	Nurse hand over	Nurse hand over	Nurse hand over
08.00-09.30	Morning report	Morning report	Morning report	Morning report	Morning report
09.30-11.00	ICU round	ICU round	ICU round	ICU round	ICU round
11.00-13.00	ICU time	ICU time	ICU time	ICU time	ICU time
13.00-14.00	Staff meeting	Mortality report	Consultant meeting	Journal club	Staff training
14.00-15.30	ICU round	ICU round	ICU round	ICU round	ICU round
15.00-06.30	On duty	On duty	On duty	On duty	On duty

Multidisciplinary obligation

1. Able to make a good coordination for totally care of patient
2. Totally care including all organ system
3. Able to make a prevention from duplication of treatment and intervention
4. Respected to patient with best standard of care

Consultant team

General surgeon or trauma surgeon
Neurosurgeon
Cardiovascular surgeon
Obstetric-gynecologic surgeon
Infectious disease specialist
Thoracic surgeon
Vascular surgeon
Radiologist with interventional capability
Cardiologist with interventional capability

Pulmonologist
Gastroenterologist
Hematologist
Urologist
Nephrologist
Pathologist
Anesthesiologist
Neurologist
Orthopedic surgeon

Consultant team

General surgeon or trauma surgeon
Neurosurgeon
Cardiovascular surgeon
Obstetric-gynecologic surgeon
Infectious disease specialist
Thoracic surgeon
Vascular surgeon
Radiologist with interventional capability
Cardiologist with interventional capability

Pulmonologist
Gastroenterologist
Hematologist
Urologist
Nephrologist
Pathologist
Anesthesiologist
Neurologist
Orthopedic surgeon

in 30 minutes

Patient Safety in ICU. JCI accreditation 2010

Key Performance Indicator

1. BOR, LOS, BTO, TOI, GDR, NDR
2. Hand Hygiene, VAP, Blood stream infection, wound infection, decubitus, urinary infection, needle stick injury, infection control
3. Patient safety, cost effectiveness, ICU error
4. Readmitted, reintubation, self extubation
5. Antibiotic round, Management round, Complex Case round

ICU Round Checklist

- 1. Patient Identity**
- 2. Pain**
- 3. Risk of Fall/side rails**
- 4. Consciousness**
- 5. Personal Hygiene**
- 6. Wound Care**
- 7. Peptic Ulcer Disease Prophylaxis**
- 8. Nutrition Evaluation**
- 9. DVT Prophylaxis**
- 10. Central Line Evaluation**
- 11. Sedation Evaluation**
- 12. Glucose Control**
- 13. Highest Glucose Level in 24 Hour**
- 14. Lowest Glucose Level in 24 Hour**
- 15. Intubation Method**
- 16. Day of Ventilator**
- 17. Weaning Assessment**
- 18. Day Ventilator Corrugated**
- 19. ETT/Tracheal Cannule**
- 20. Head of the Bed Elevation**
- 21. Antibiotic Evaluation**
- 22. Microbiology Culture**
- 23. Invasive Line**
- 24. Drug Storage**

Staff meeting

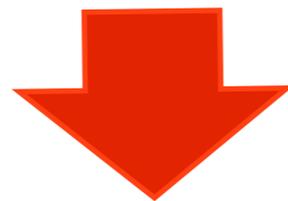
Every Monday

- Head of ICU
- Head Nurse
- Nurse Manager
- Clinical Nurse
- ICN
- Technician
- Pharmacies
- Billing
- Administration
- Residence

Staff meeting

Every Monday

- Head of ICU
- Head Nurse
- Nurse Manager
- Clinical Nurse
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- Administration
- Residence



Weekly evaluation

External process

External process

ICU can not standing alone ! ! !

External process

ICU can not standing alone ! ! !

- Laboratory
- Radiology
- Emergency unit
- Operating room
- Ward
- Interventional room
- Insurance
- Billing
- Pharmacy
- Technician
- Cleaning services
- Etc

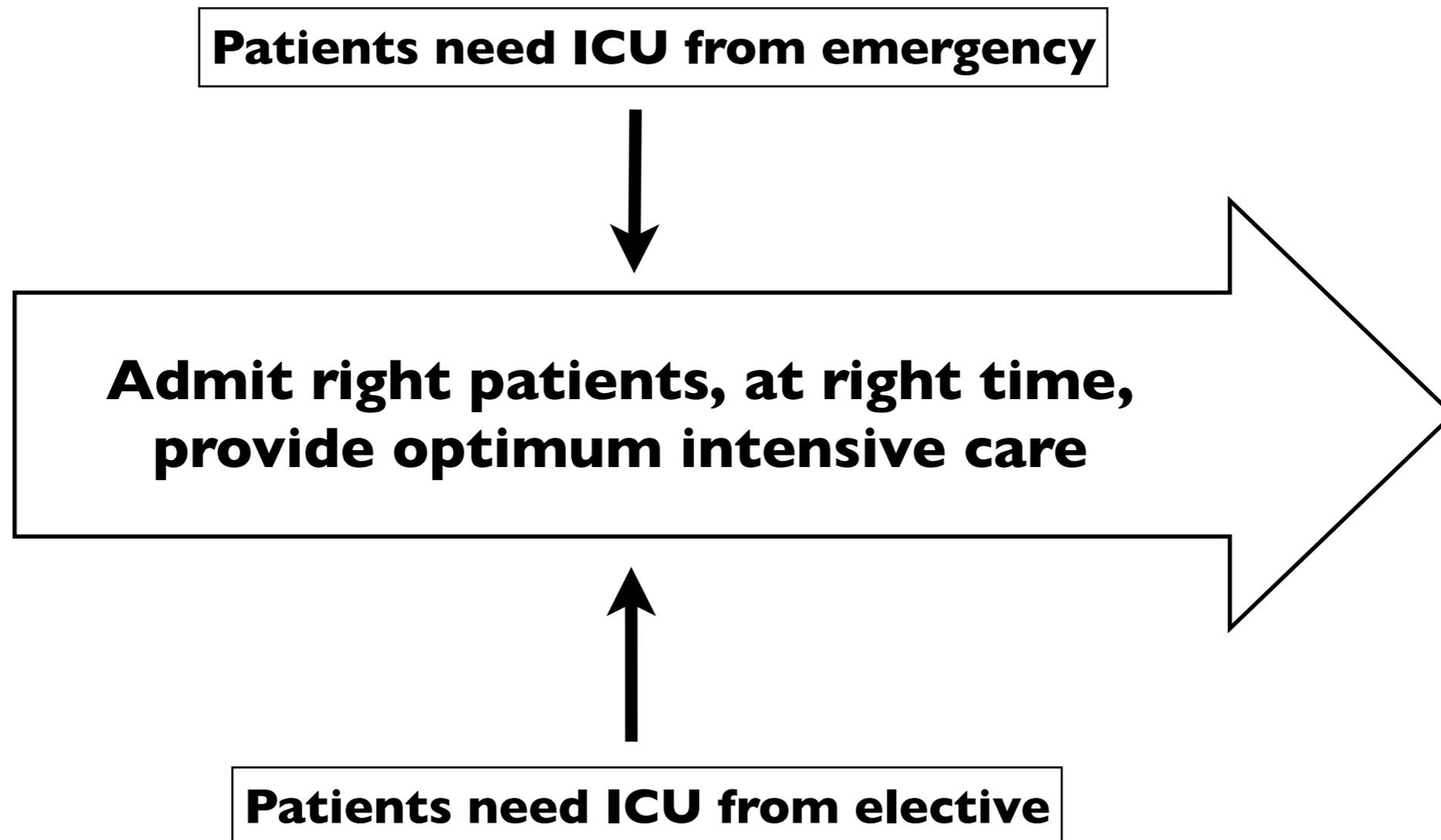
External process

ICU can not standing alone ! ! !

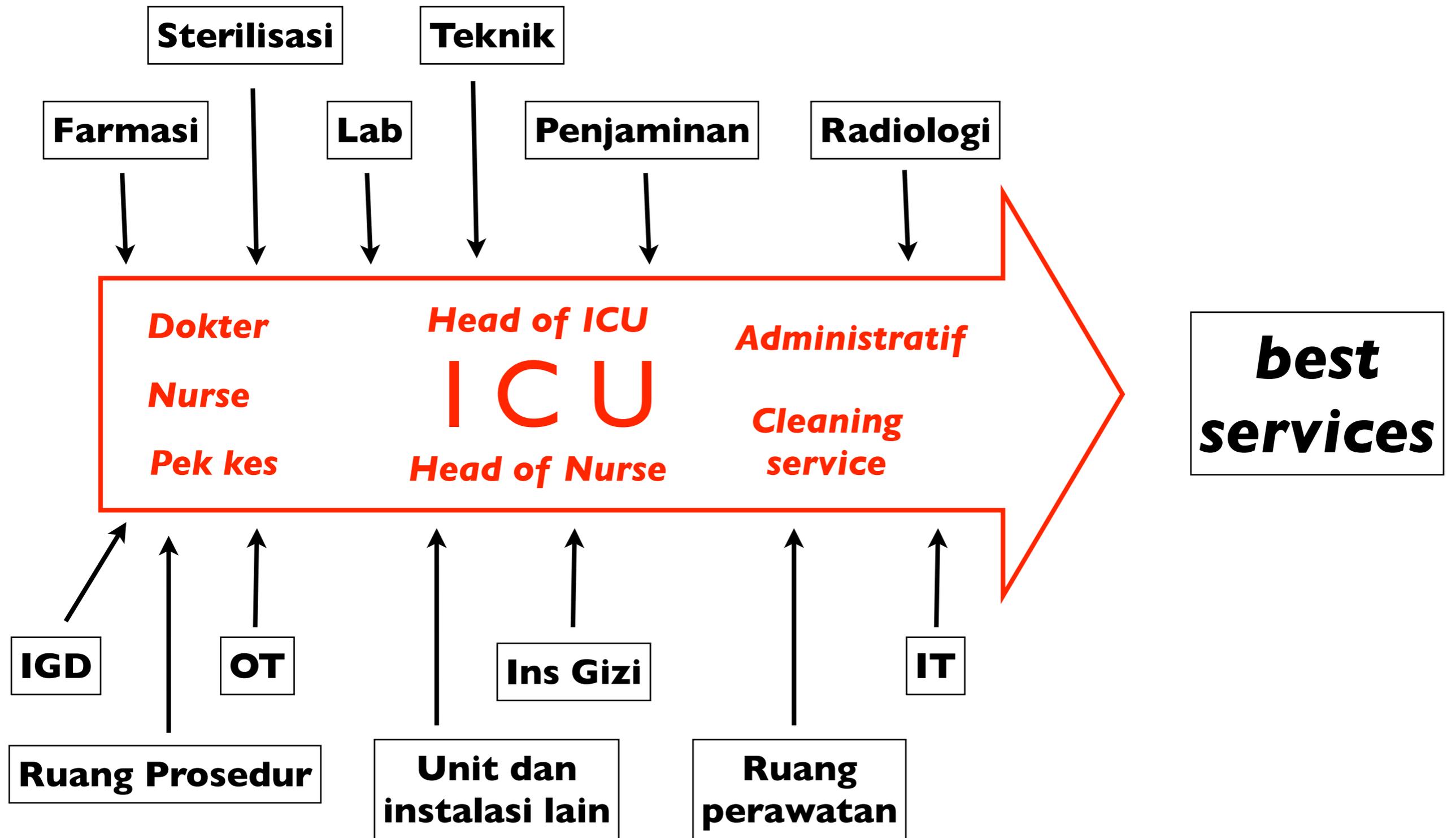
- Laboratory
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- Etc

Hospital Policy

Goals for a well organized ICU

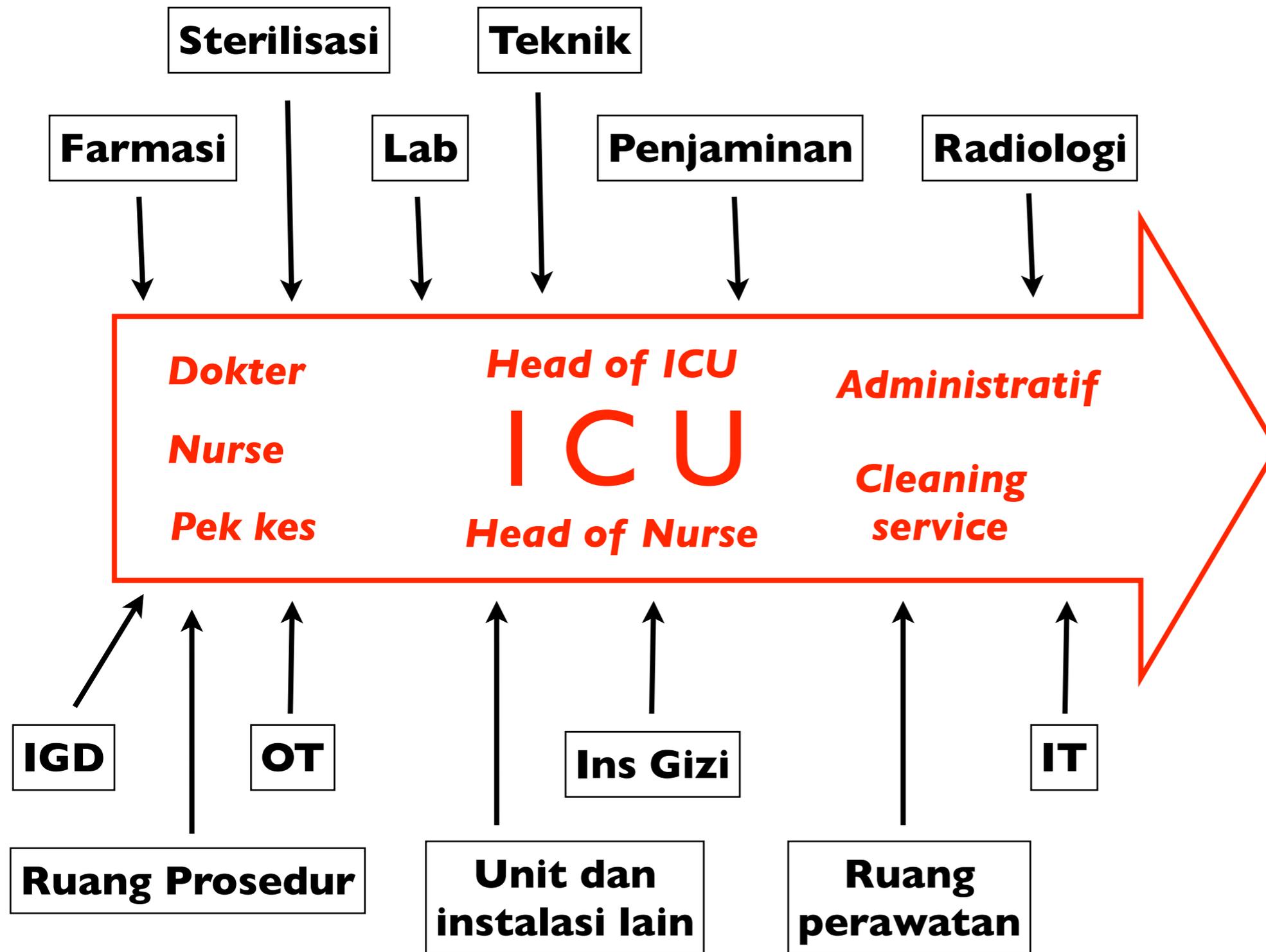


Takala J.25 Years of Progress and Innovation in Intensive Care Medicine.ESICM 2007



Internal Process

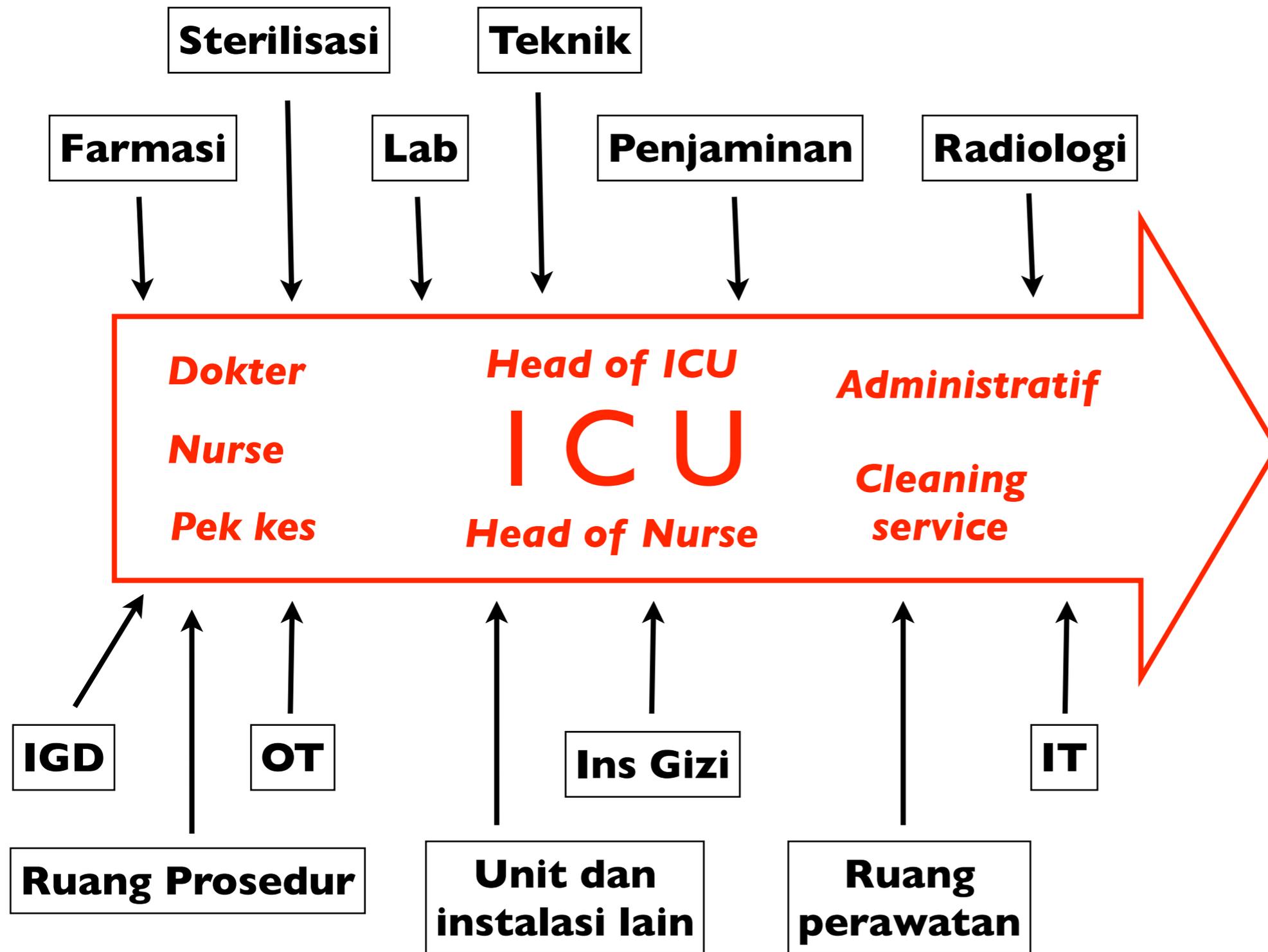
External Process



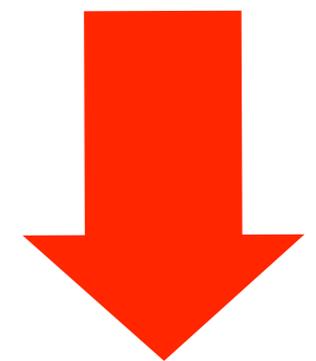
Who is determine the best services ?

Internal Process

External Process

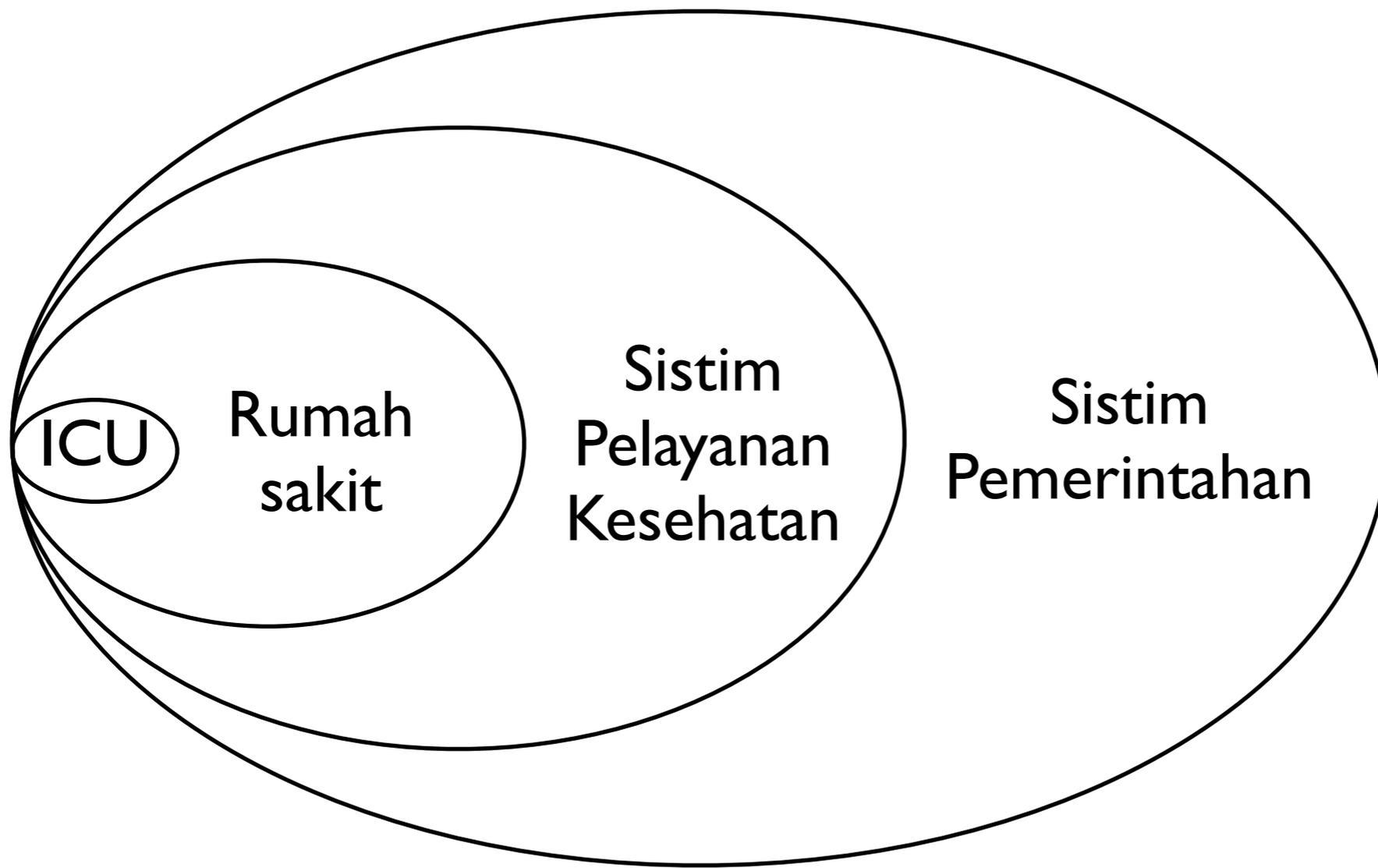


Who is determine the best services ?



The bad one

Internal Process
External Process

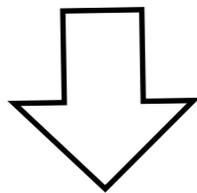


Nilai, hukum, sosial budaya, norma, etika, adat istiadat, yang berlaku di masyarakat

Kasus

35 th, KLL, epidural hematoma E2 M2 V2, fraktur femur terbuka dan syok hemoragik TD 70 / palp, kraniotomi dan hemostasis cito

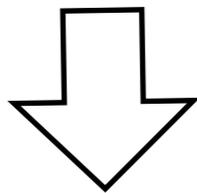
89 th, stroke berulang serangan ke 5, E2 M2 Vtrach, kardio miopati EF 25% global hipokinetik, CKD, sirosis hepatis



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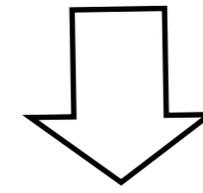
Kasus

35 th, KLL, epidural hematoma E2 M2 V2, fraktur femur terbuka dan syok hemoragik TD 70 / palp, kraniotomi dan hemostasis cito



Jamkesmas
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ASKES SOS

89 th, stroke berulang serangan ke 5, E2 M2 Vtrach, kardio miopati EF 25% global hipokinetik, CKD, sirosis hepatis



Bpknya anggota DPR
Mertua Prof
Saudara Direktur
Titipan Pejabat Negara



Morning report



ICU Round



ICU Round



Generic name

MEDIKASI	E ₃	Pipemidil tarobach 4x 415gr
	R E ₃	Amikasin 1x 1gr
		Ranitidin 2x 50gr
		Ketorolac 3x 30gr
		Fenitoin 3x 100gr
		Simvastatin 1x 20gr
		Amlodipin 1x 5gr

Dr. Rudyanto S, SpAn KIC
NIP. 19690919 199903 1 003

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Drug monitoring form



Staff meeting



Tutorials













PERHATIAN !!!

OBAT
PASIEN

SAMPEL
LABORATORIUM

BAGSTER
M. RISKY M.
CIPTO (RSDM)
B

NIC BED 9



CRCK
Kantor: Jl. Cendekia No. 11, Jakarta Timur
Telp: (021) 6440000, Fax: (021) 6440001

**FORMULIR PEMANTAUAN
CHECK LIST RUMAH KELUARGA DAN TUJUAN BUNYAN**

RUANGAN: 2013 RUMAH: 101 b

NO	TANGGAL																																	
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Legenda

1. Berikan tanda "ya" pada kolom "ya" dan tanda "tidak" pada kolom "tidak"
2. Berikan tanda "ya" pada kolom "ya" dan tanda "tidak" pada kolom "tidak"
3. Untuk tujuan dan indikator indikator dalam rumah
4. Jika terjadi perubahan data, ditunjukkan dan dituliskan pada kolom "catatan" dengan nama dan tanggal tahun bulan tahun 2013

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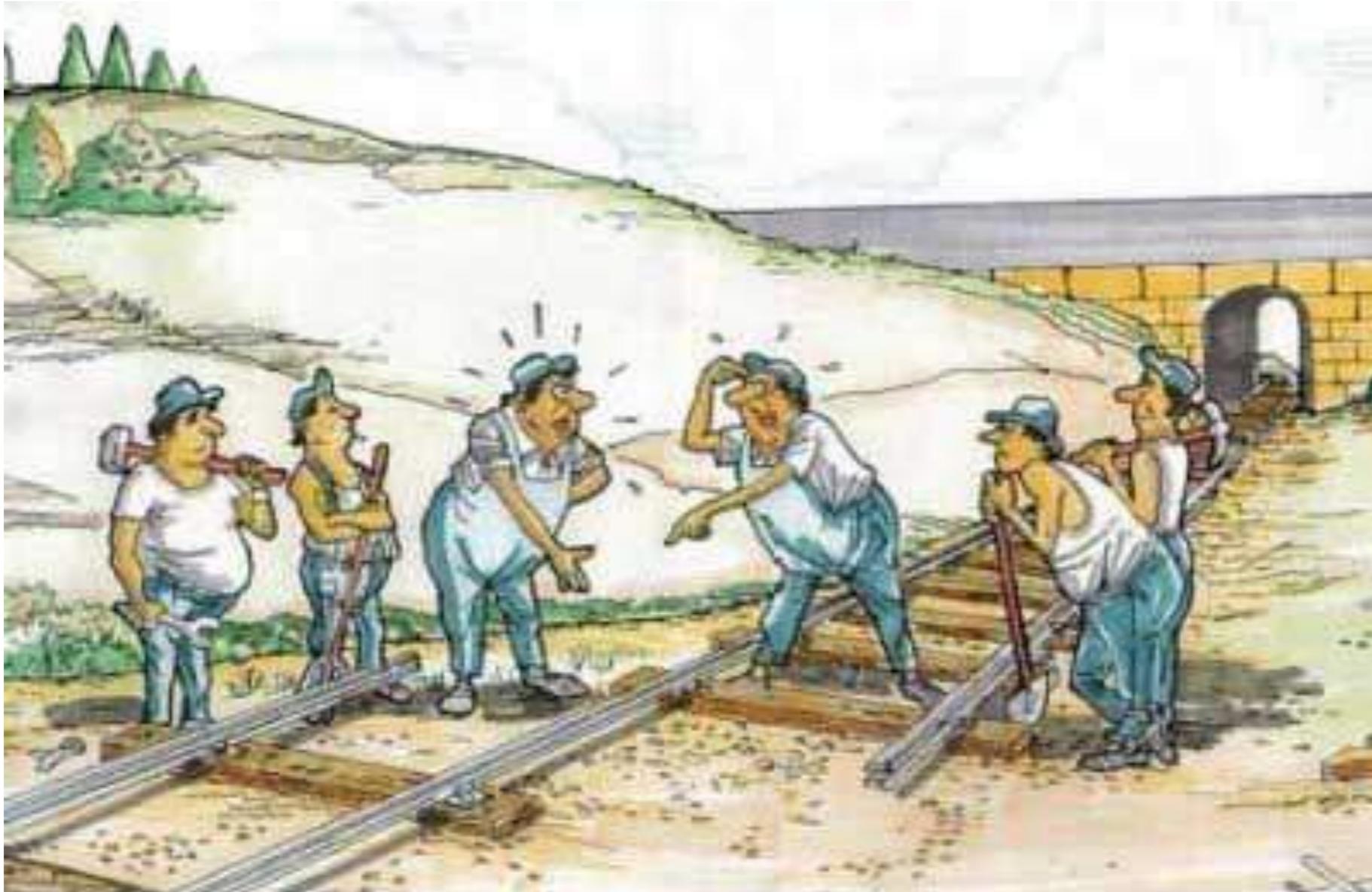
At the end of the day, managing an ICU is like driving a world rally championship car: Hardware, technical issues and teamwork certainly are important, but above all, result come from the state of mind that produces championship; an ability to fight for victory, with the constant awareness that the work of many hours could be lost in a few moment of distraction

Moreno. Organisation and Management of Intensive Care. ESICM 2010



In a standard 13 to 16 second pit stop, the six-man crew provides the driver with a fresh bottle of water, four new tires, a tank of gas, a clean grill and windshield, while making numerous other adjustments to the car

Team work



Team work

Matuur nuwun

