

25/05/2018

h 10:15



XI congresso nazionale

simeu

ROMA 24-26 MAGGIO 2018

Giuseppe Pepe

25/05/2018 - h10:15

Sala CARAVAGGIO 1/2

Sessione ARITMIE E SCOMPENSO

L'approccio **ABCDE** Nello Scompenso Cardiaco In Emergenza Urgenza:

Un Nuovo Algoritmo Decisionale Per La Gestione Clinico/Terapeutica

Giuseppe Pepe, MD, PhD

Dipartimento Emergenza Urgenza e Terapie Intensive
UOC Medicina d'Urgenza e Pronto Soccorso
Ospedale Unico Versilia
Azienda USL Toscana Nord Ovest



XI congresso nazionale

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Gestione del paziente con scompenso cardiaco: ***cosa "lamentavamo" nel recente passato***

- **Il progresso delle conoscenze sulla terapia farmacologica si è rallentato.**
- La medicina **"hi-tech"** è affascinante ma di impatto relativo per la globalità degli scompensati
- **La maggioranza dei pazienti è anziana e non inserita in un percorso diagnostico-terapeutico (PDT) chiaro e condiviso**
- La cronicità richiede **la presa in carico** del paziente per la globalità dei suoi bisogni

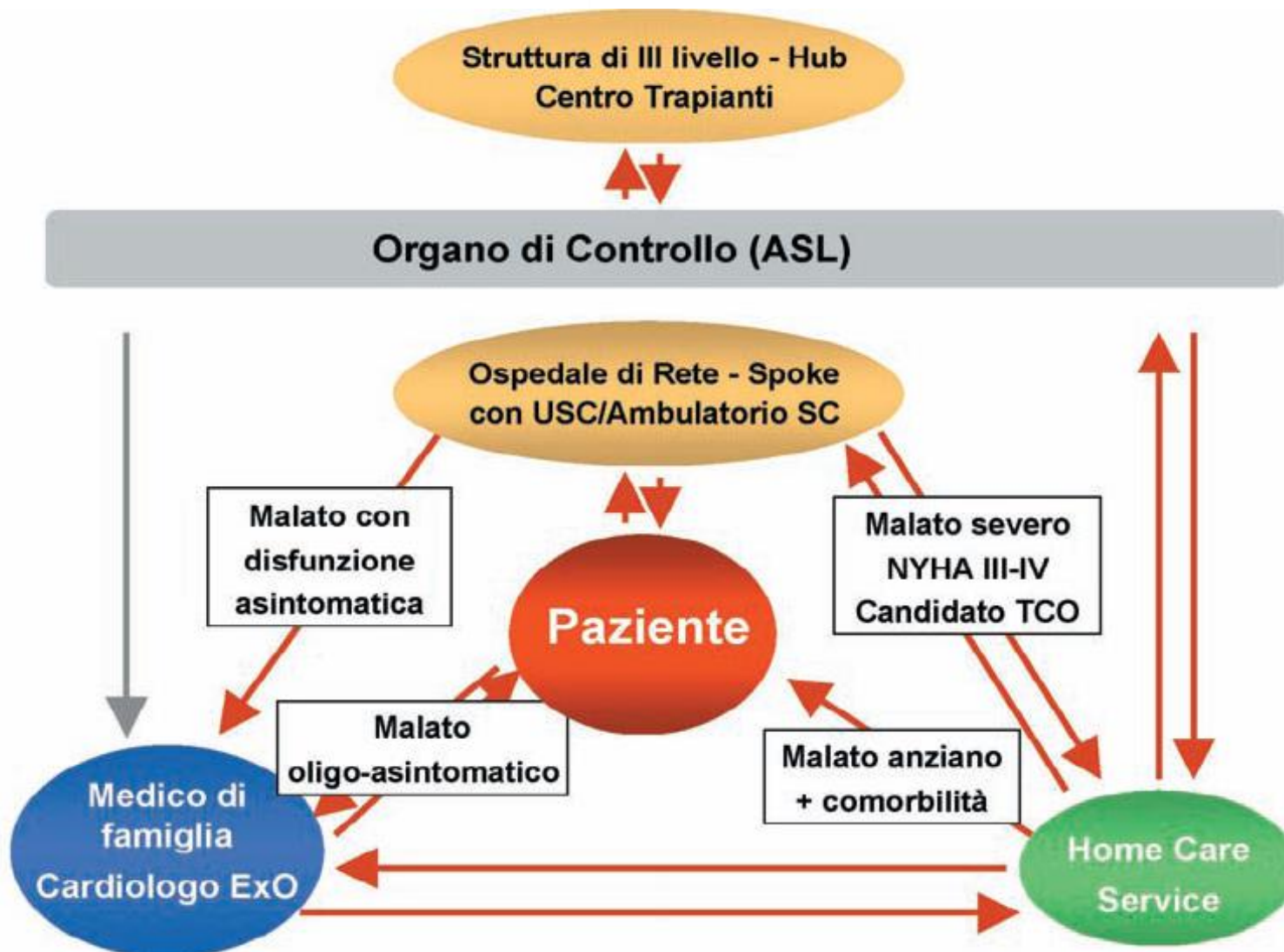
Gestione del paziente con scompenso cardiaco:

cosa ci siamo proposti

La gestione ospedaliera

- Attivazione dell'osservazione breve in PS/DEA per i pazienti a basso rischio
- Indicazioni al ricovero
- Scelta del luogo di cura
 - *Unità per lo Scompenso Cardiaco*
- Trasferimenti interni
- Cure intermedie
- Riferimento del paziente dimissibile all'Ambulatorio dedicato
- Rete organizzativa secondo il **modello "hub&spoke"**

***Rete territoriale (Spoke) ed ospedale di terzo livello (Hub)
per la gestione dei diversi percorsi assistenziali***



È un gioco di squadra ...



Sutton Images

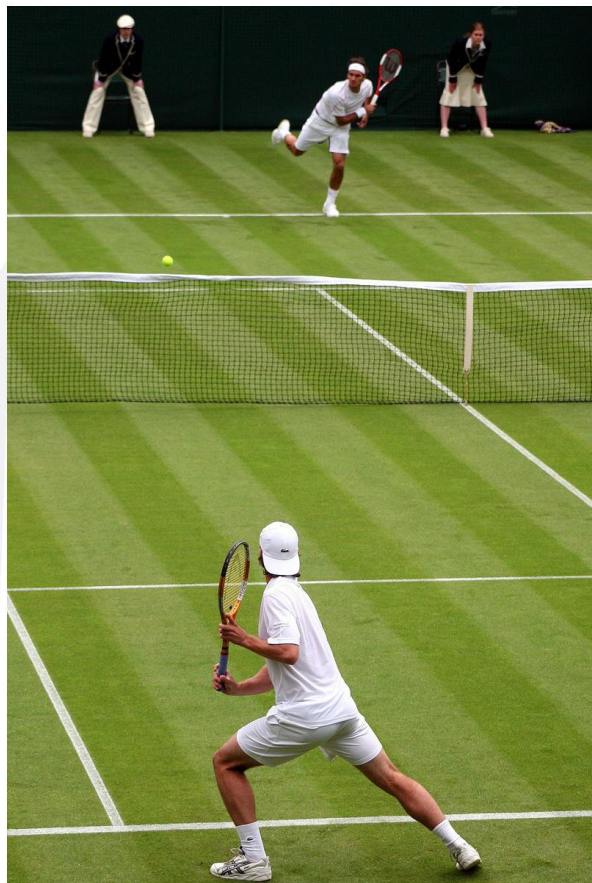


*... con il fattore tempo e il
fattore umano*

Approccio ABCDE e SC

G. Pepe

Un gioco che ha qualche rischio ...



Nel gioco di squadra ... è inevitabile qualche fallo di gioco ...



Approccio ABCDE e SC

G. Pepe

○ "Le giornate in ospedale di Donatello ..."

2013

Gennaio					
Lu		7	14	21	28
Ma	1	8	15	22	29
Me	2	9	16	23	30
Gi	3	10	17	24	31
Ve	4	11	18	25	
Sa	5	12	19	26	
Do	6	13	20	27	
	1	2	3	4	5

Febbraio					
Lu		4	11	18	25
Ma		5	12	19	26
Me		6	13	20	27
Gi		7	14	21	28
Ve	1	8	15	22	
Sa	2	9	16	23	
Do	3	10	17	24	
	5	6	7	8	9

Marzo					
Lu		4	11	18	25
Ma		5	12	19	26
Me		6	13	20	27
Gi		7	14	21	28
Ve	1	8	15	22	29
Sa	2	9	16	23	30
Do	3	10	17	24	31
	9	10	11	12	13

Aprile					
Lu	1	8	15	22	29
Ma	2	9	16	23	30
Me	3	10	17	24	
Gi	4	11	18	25	
Ve	5	12	19	26	
Sa	6	13	20	27	
Do	7	14	21	28	
	14	15	16	17	18

Maggio					
Lu		6	13	20	27
Ma		7	14	21	28
Me	1	8	15	22	29
Gi	2	9	16	23	30
Ve	3	10	17	24	31
Sa	4	11	18	25	
Do	5	12	19	26	
	18	19	20	21	22

Giugno					
Lu		3	10	17	24
Ma		4	11	18	25
Me		5	12	19	26
Gi		6	13	20	27
Ve		7	14	21	28
Sa	1	8	15	22	29
Do	2	9	16	23	30
	22	23	24	25	26



... ma con alcune regole e *traiettorie* :

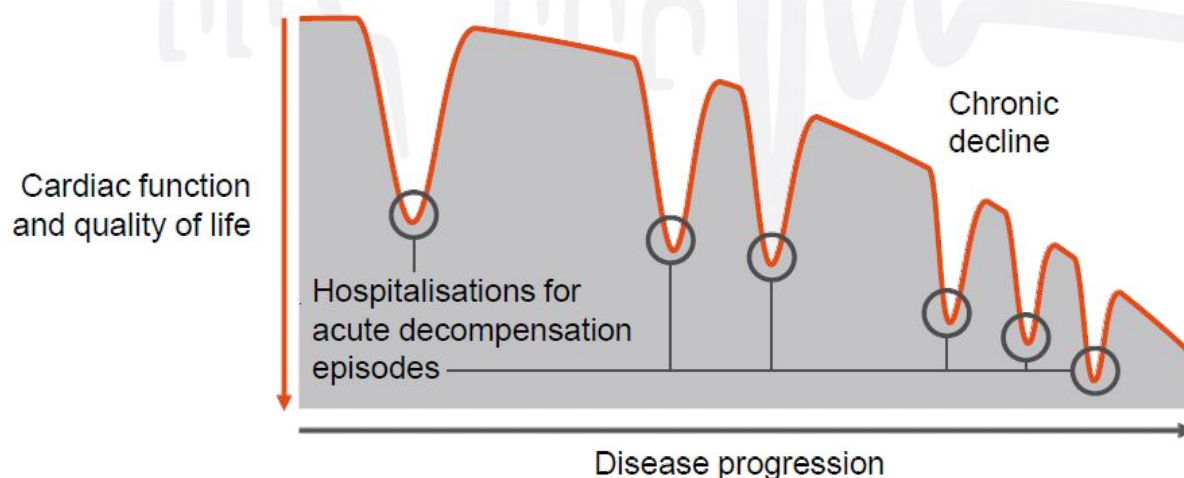


**Tenere il paziente
con scompenso
cardiaco
fuori dall'ospedale**

Heart Failure is a complex syndrome involving multiple organ systems and is associated with a high mortality and morbidity burden

- Heart failure (HF) is a chronic condition, punctuated by acute episodes
- Each acute event results in further organ damage: myocardial and renal damage occurring during such episodes may contribute to progressive left ventricular and/or renal dysfunction
- Increasing frequency of acute events with disease progression leads to higher rates of hospitalization and increased risk of mortality

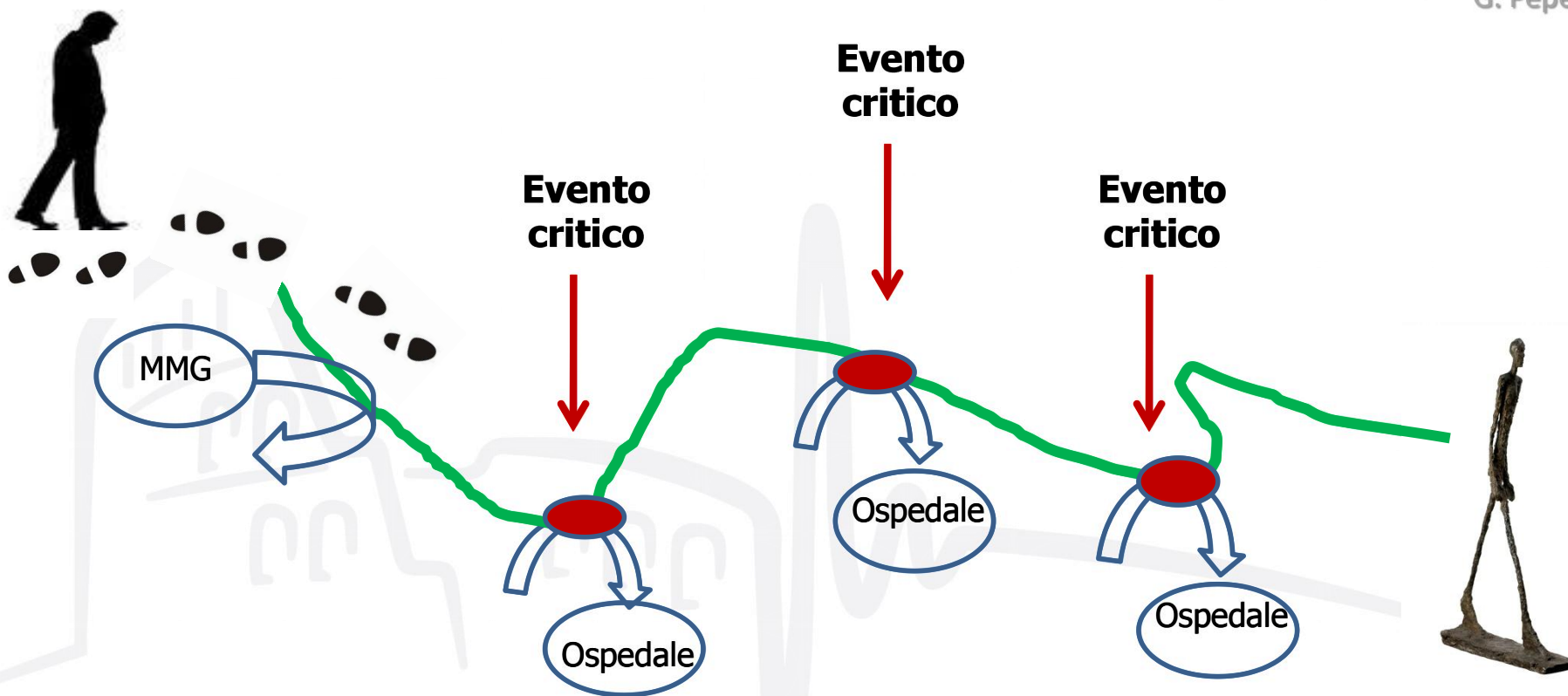
Quali traiettorie ...



Adapted from Gheorghiade et al. Am J Cardiol 2005;96:11–17;
Gheorghiade and Pang. J Am Coll Cardiol 2009;53:557–73

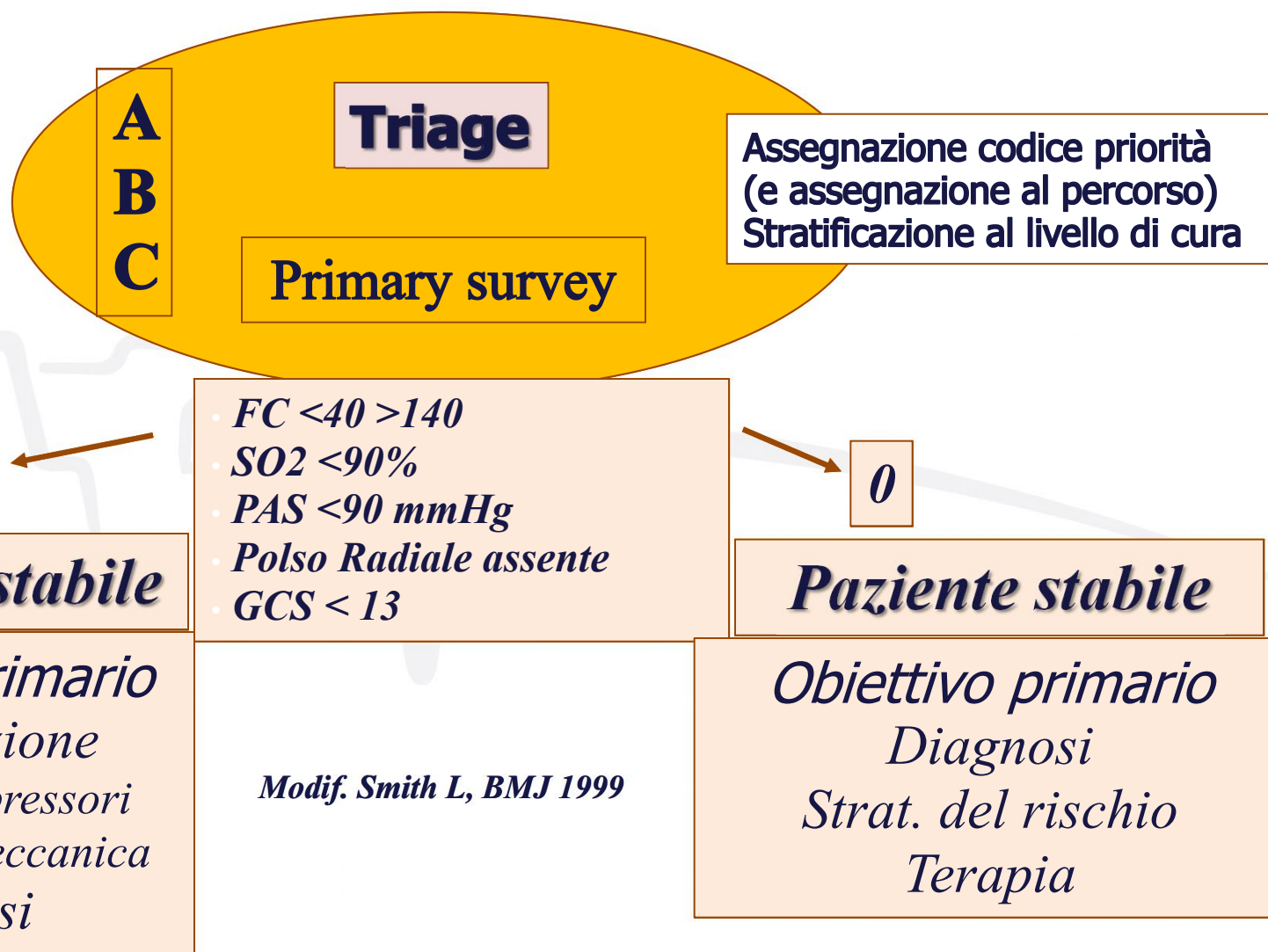
Approccio ABCDE e SC

G. Pepe



Quali *traiettorie* ...

Gestione del paziente con scompenso cardiaco: il DEA come *primo snodo decisionale/inizio del percorso*

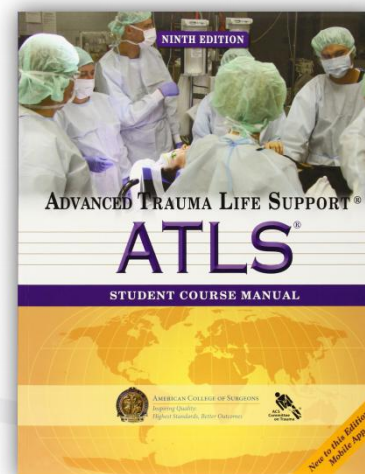
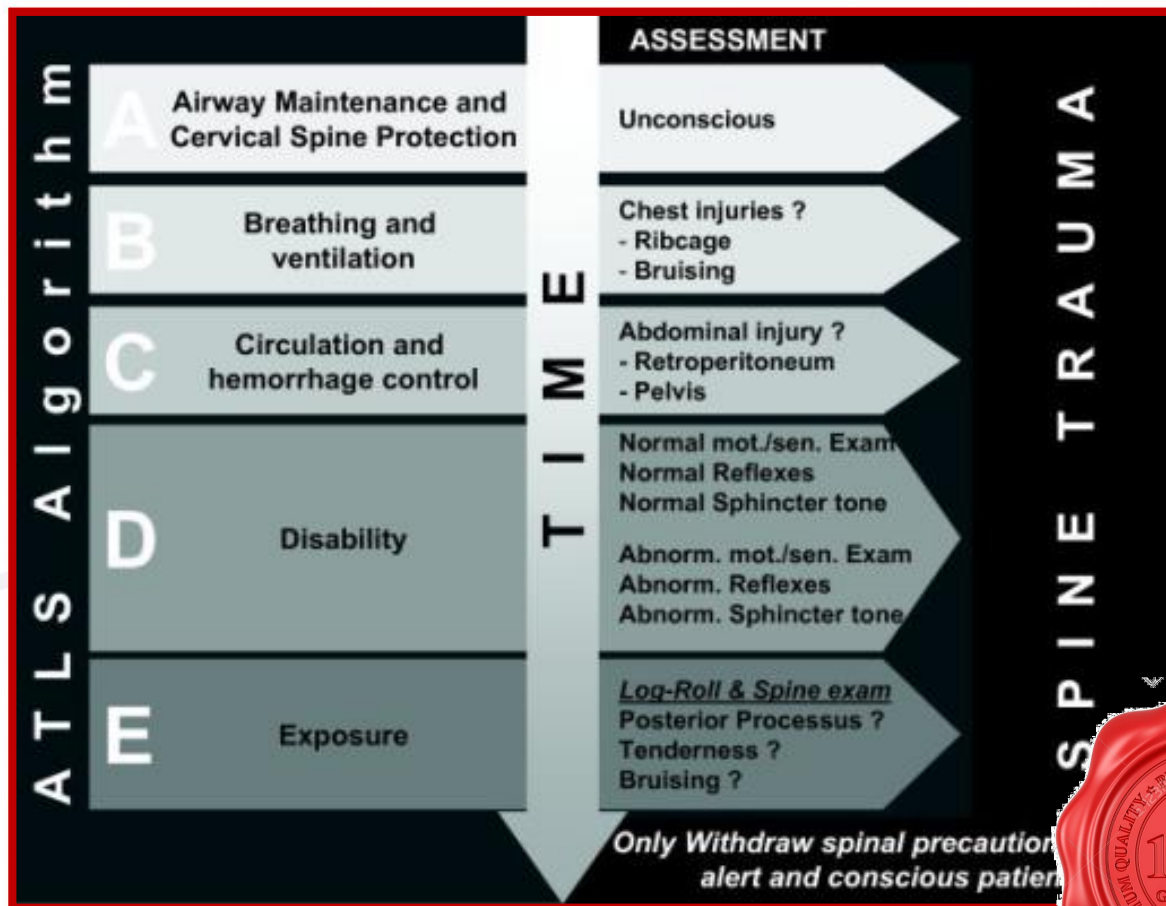




Perché esiste la necessità di un *approccio semplicistico ?*



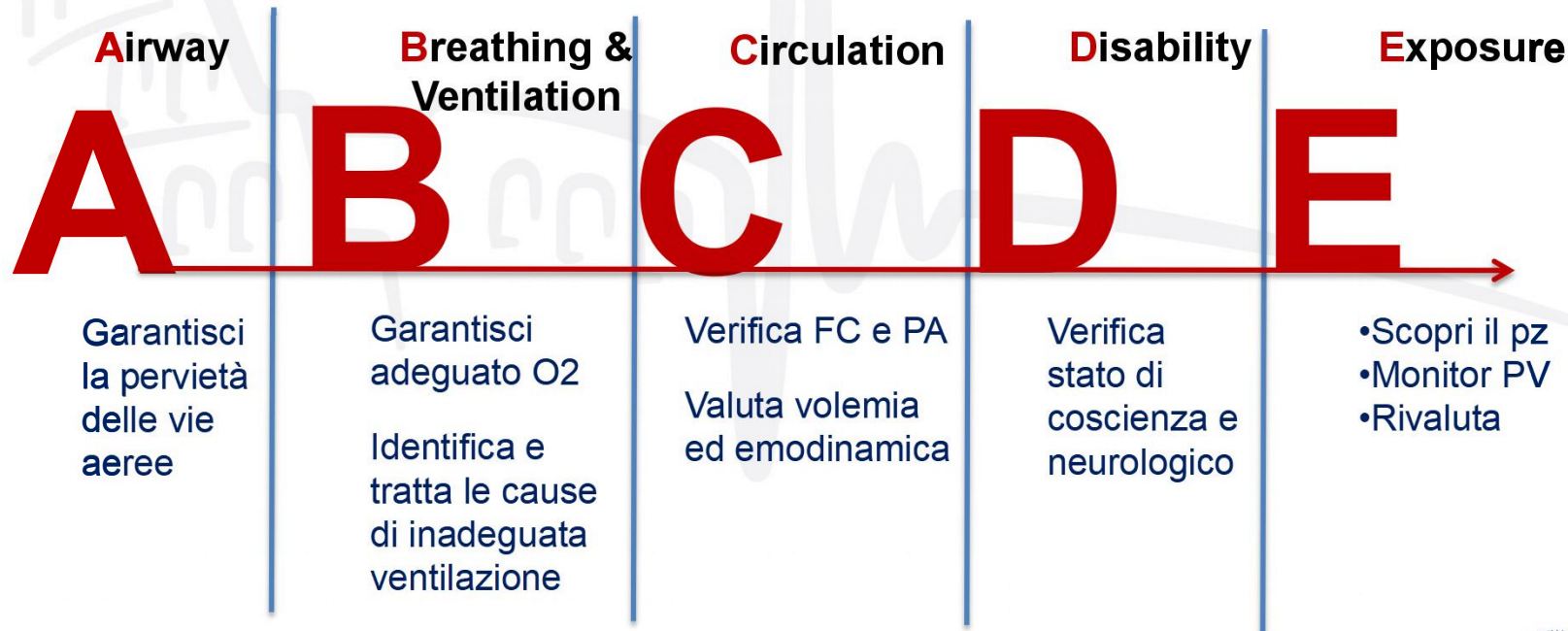
L'approccio ABCDE nel trauma





Primary Survey

Primary Survey



Approccio ABCDE e SC

G. Pepe

Pattern emodinamico,
presentazione clinica
e prognosi

Ipoperfusione

NO

SI

Congestione polmonare

NO

SI

*Caldo e asciutto**Caldo e umido***A****B**

WARM-DRY

WARM-WET

*Freddo e asciutto**Freddo e umido***D****C**

COLD-DRY

COLD-WET

†
F
*Assente e/o
 inaffidabile*

E
*Presente e
 affidabile*

NO

SI

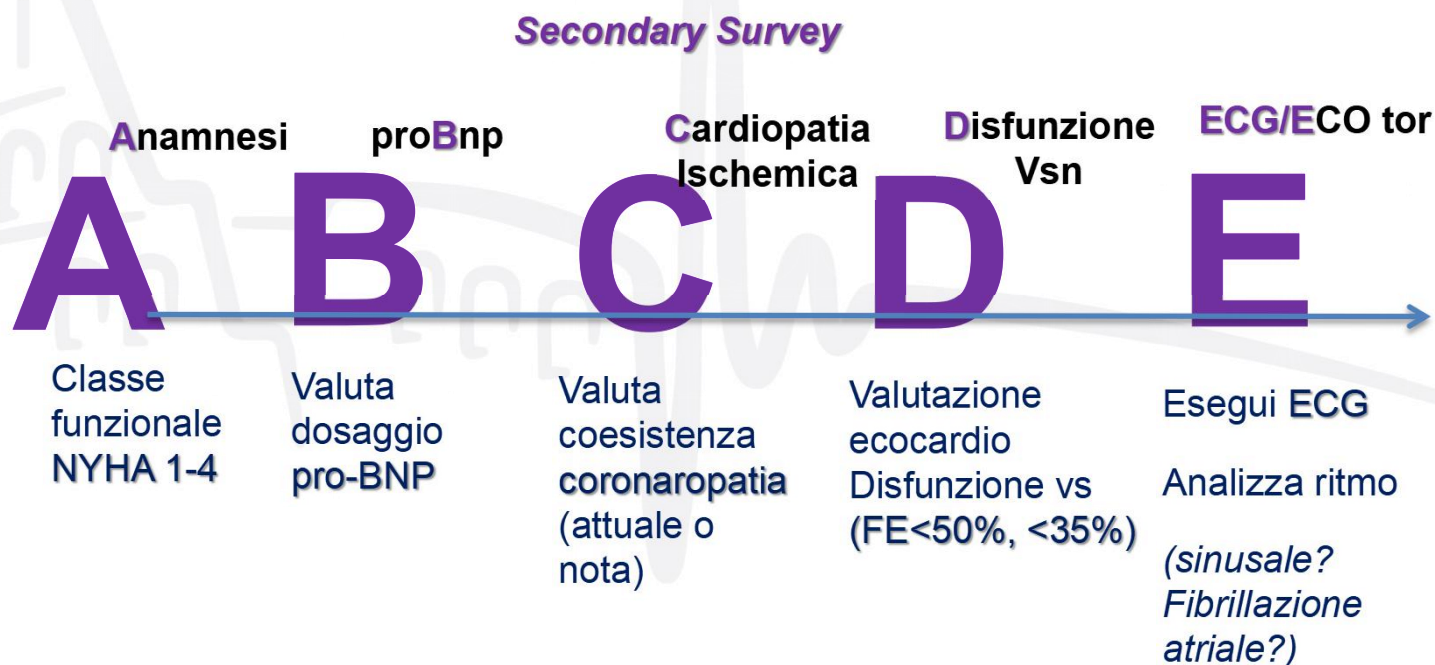
Setting assistenziale

Prognosi peggiore

Approccio ABDCE clinico

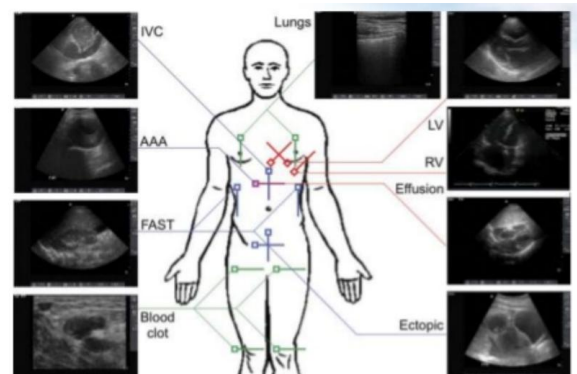
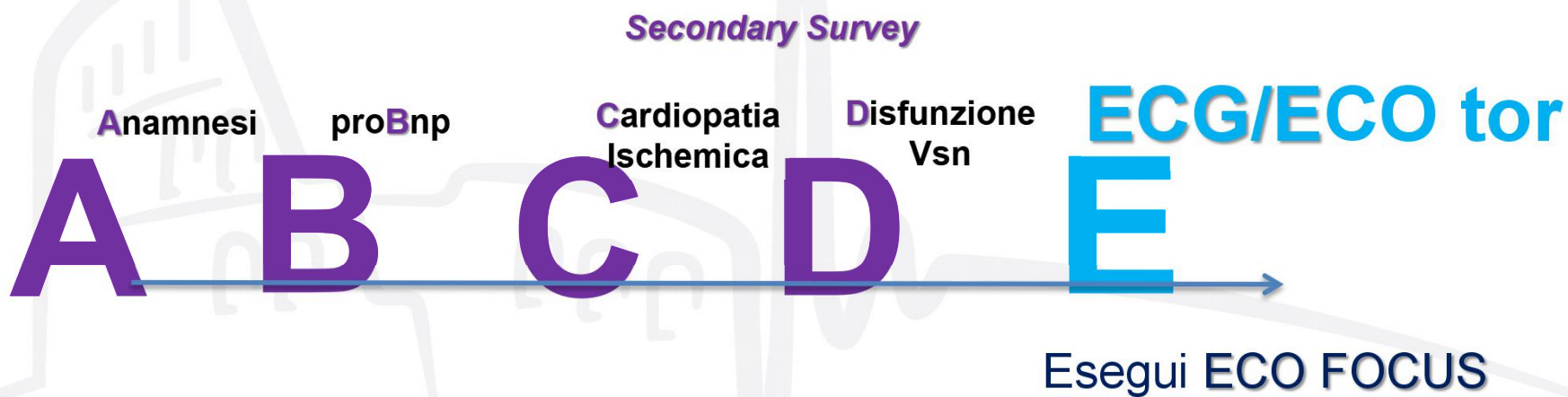


Approccio diagnostico





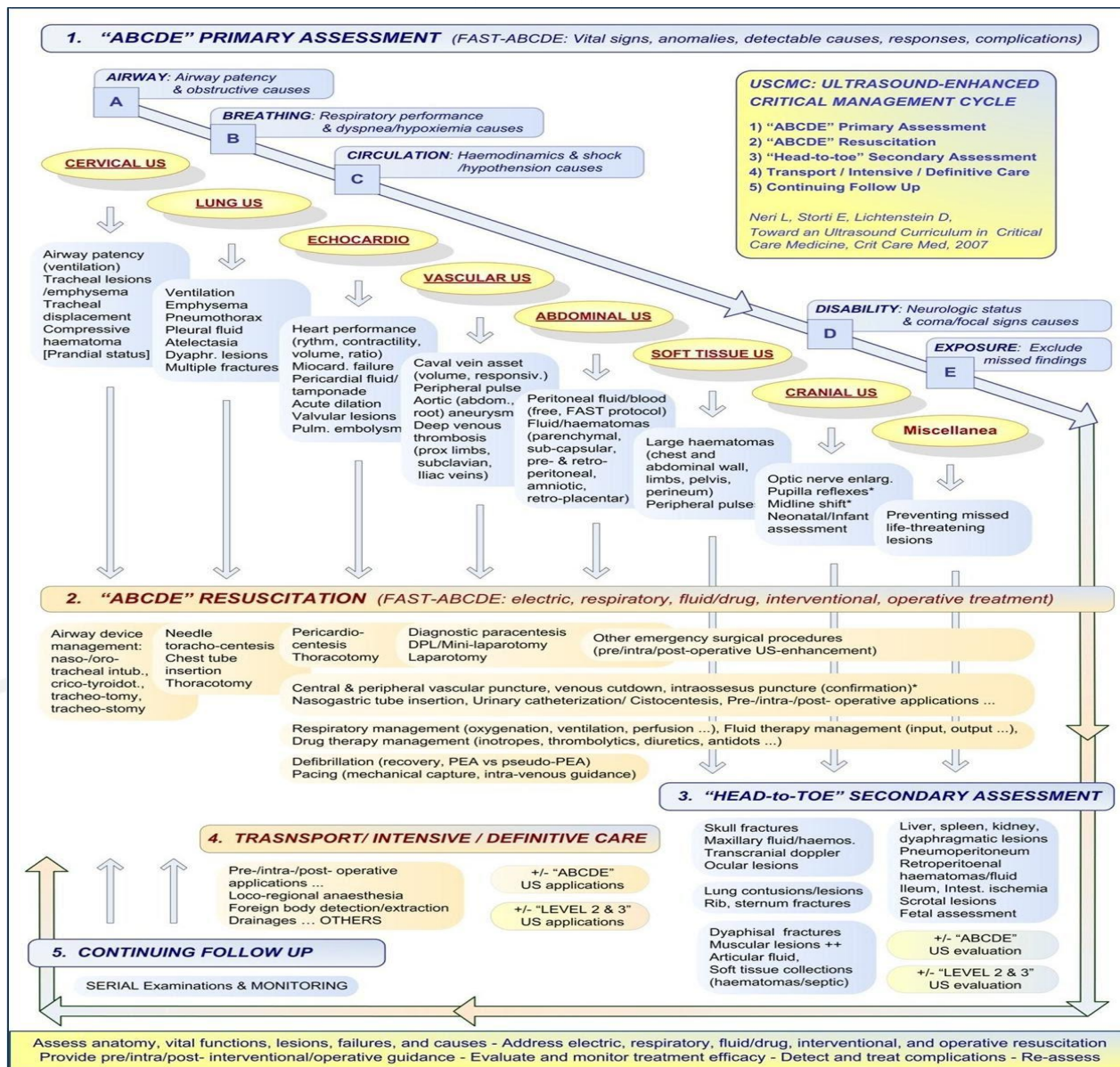
Approccio diagnostico





Approccio ABCDE e SC

G. Pepe

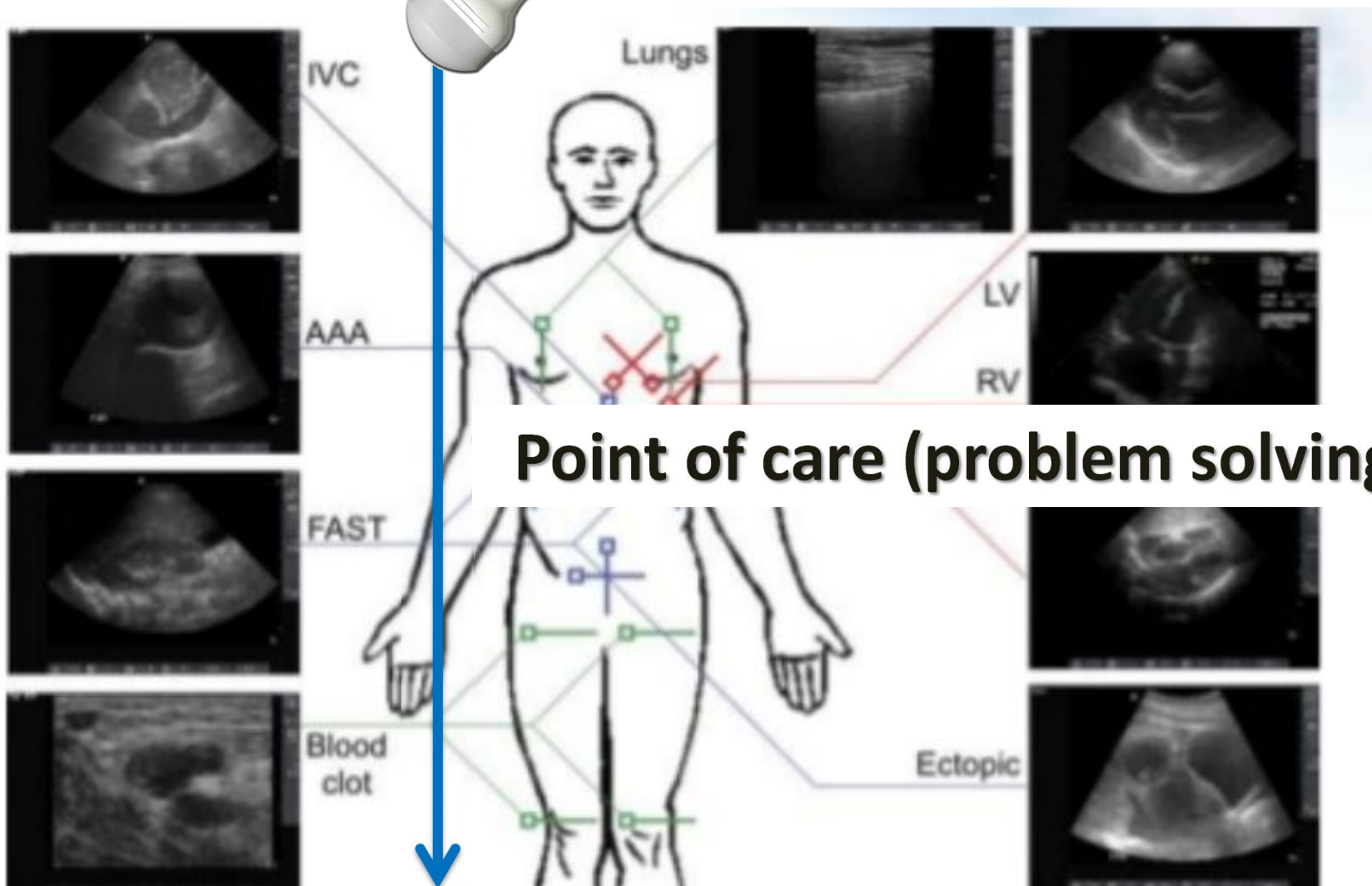


L'approccio ABCDE ecografico



Approccio ABCDE e SC

G. Pepe



L'approccio ABCDE ecografico



I players

MMG

+

Medici di continuità
(Guardia Medica)

**Emergenza
Pre-
Ospedaliera**

118

DEA

PS

OBI

Med. Urg.

**Il
paziente
(e la sua
famiglia)**

**Ospedale
sec.
Intensità di
Cura**

La terapia farmacologica



Approccio ABCDE e SC

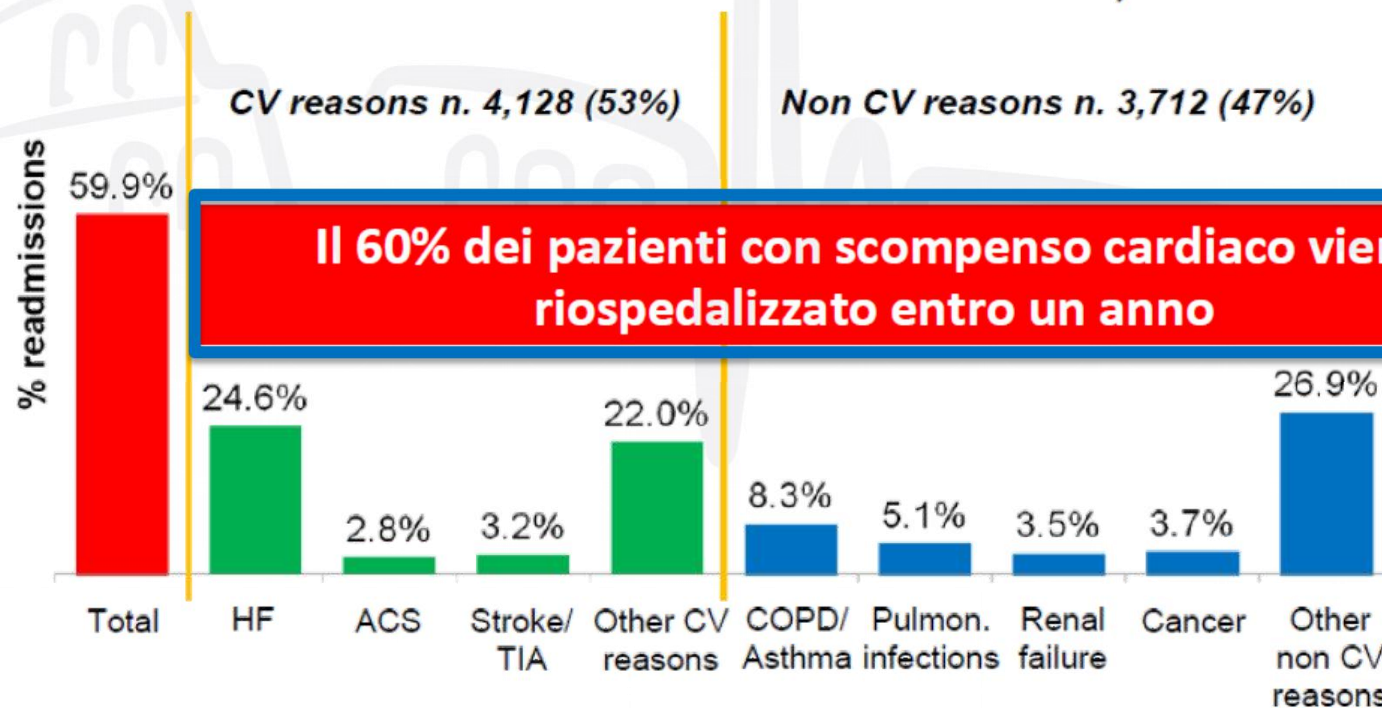
G. Pepe



The real-world evidence of heart failure: findings from 41 413 patients of the ARNO database

Aldo P. Maggioni^{1,*}, Francesco Orso^{1,2}, Silvia Calabria³, Elisa Rossi⁴, Elisa Cinconze⁴, Samuele Baldasseroni⁵, and Nello Martini⁶, on behalf of the ARNO Observatory[†]

Total number of readmissions = 7,840





2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure

The Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC)

Patients with symptomatic^a HFrEF^b

Green indicates a **class I** recommendation;
Yellow indicates a **class IIa** recommendation.

Diuretici

Recommendations	Class ^a	Level ^b
Diuretics		
Diuretics are recommended in order to improve symptoms and exercise capacity in patients with signs and/or symptoms of congestion.	I	B
Diuretics should be considered to reduce the risk of HF hospitalization in patients with signs and/or symptoms of congestion.	IIa	B

Diuretics to relieve symptoms and signs of congestion



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Patients with symptomatic^a HFrEF^b

Therapy with ACE-I^c and beta-blocker
(up-titrate to maximum tolerated evidence-based doses)

Still symptomatic and LVEF $\leq 35\%$

Yes

Add MR antagonist^{d,e}
(up-titrate to maximum tolerated evidence-based dose)

Green indicates a **class I** recommendation;
Yellow indicates a **class IIa** recommendation.

Pharmacological treatments indicated in patients with symptomatic (NYHA Class II-IV) HFrEF

Recommendations	Class	Level
An ACEi is recommended, in addition to a beta blocker, for symptomatic patients with HFrEF <i>to reduce the risk of HF hospitalization</i> and death	I	A
A beta blocker is recommended, in addition an ACEi, for patients with stable, symptomatic HFrEF <i>to reduce the risk of HF hospitalization</i> and death	I	A
An MRA is recommended for patients with HFrEF, who remain symptomatic despite treatment with an ACEi and a beta-blocker, <i>to reduce the risk of HF hospitalization</i> and death	I	A

Ace-I

Beta-b

MRA

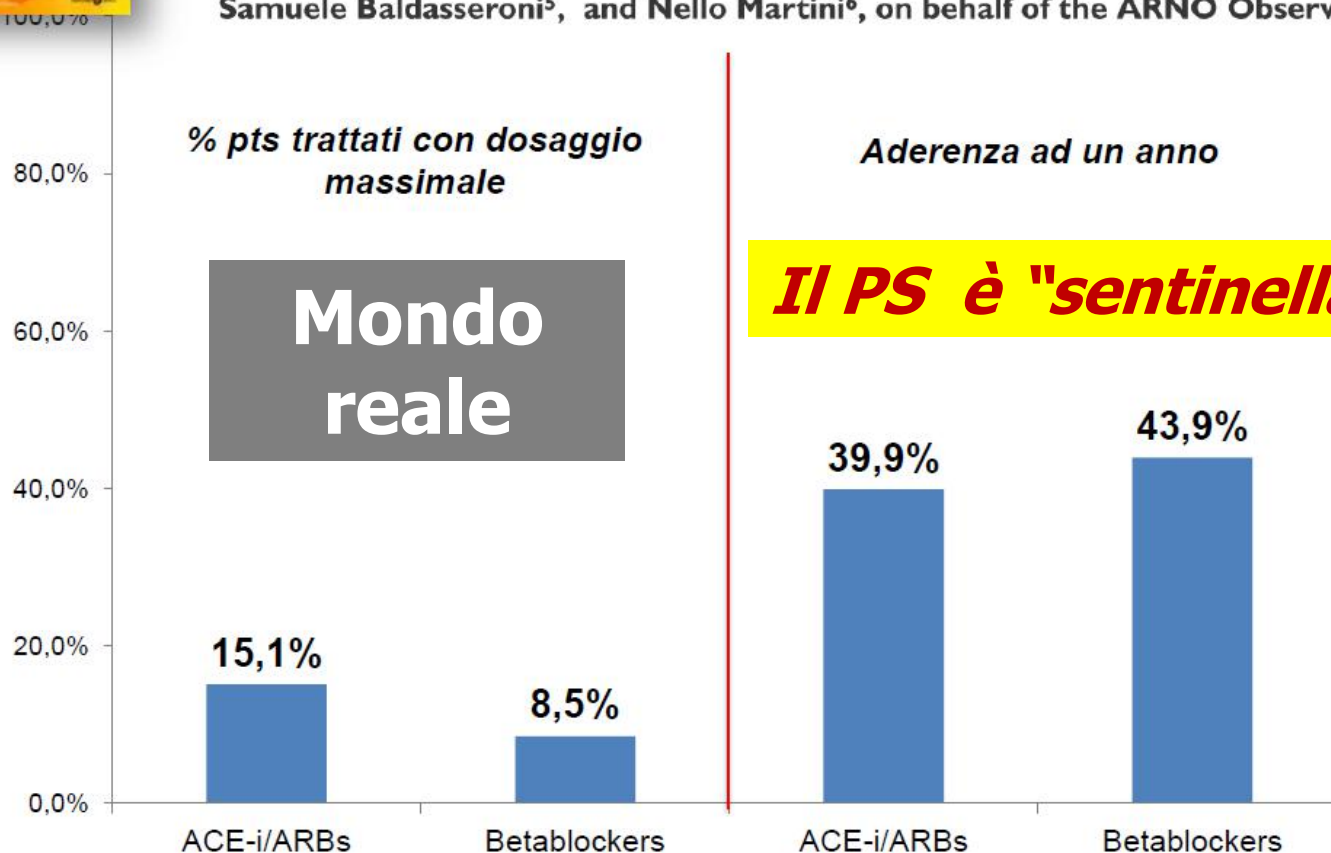
ptoms and signs of congestion

spite OMT or a history of
c VT/VF, implant ICD



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Approccio ABCDE e SC

G. Pepe

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The Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC)

Patients with symptomatic^a HFrEF^bTherapy with ACE-I^c and beta-blocker
(up-titrate to maximum tolerated evidence-based doses)Still symptomatic and LVEF $\leq 35\%$

Yes

Add MR antagonist^{d,e}
(up-titrate to maximum tolerated evidence-based dose)

Yes

Still symptomatic and LVEF $\leq 35\%$

No

Sinus rhythm^h,
HR ≥ 70 beats/min

Ivabradine

If-channel inhibitor

Ivabradine should be considered to reduce the risk of HF hospitalization and cardiovascular death in symptomatic patients with LVEF $\leq 35\%$, in sinus rhythm and a resting heart rate ≥ 70 bpm despite treatment with an evidence-based dose of beta-blocker (or maximum tolerated dose below that), ACE-I (or ARB), and an MRA (or ARB).

IIa

B

No further action required.
Consider reducing diuretic dose

Green indicates a **class I** recommendation;
Yellow indicates a **class IIa** recommendation.

Ivabra

Diuretics to relieve symptoms and signs of congestion

Diuretics to relieve symptoms and signs of congestion

If LVEF $\leq 35\%$ and a history of T/VT, implant ICD

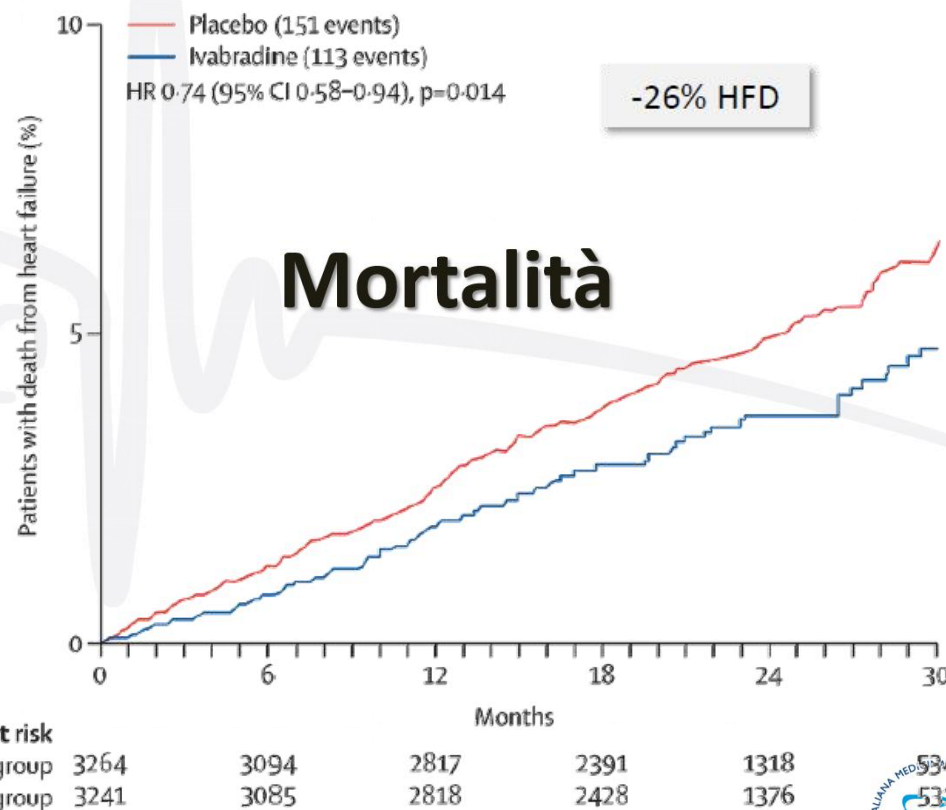
THE LANCET

"High heart rate is a risk factor in heart failure. Selective lowering of heart rate with ivabradine improves outcomes in patients with heart failure as an important target for treatment of heart failure."

Ivabradine and outcomes in chronic heart failure (SHIFT): a randomised placebo-controlled study

Karl Swedberg, Michel Komajda, Michael Böhm, Jeffrey S Borer, Ian Ford, Ariane Dubost-Brama, Guy Lerebours, Luigi Tavazzi, on behalf of the SHIFT Investigators*

	Ivabradine group (n=3241)	Placebo group (n=3264)
Demographic characteristics		
Age (years)	60.7 (11.2)	60.1 (11.5)
Sex (male)	2462 (76%)	2508 (77%)
Ethnic origin		
White	2879 (89%)	2892 (89%)
Asian	268 (8%)	264 (8%)
Other	94 (3%)	108 (3%)
Current smoking	541 (17%)	577 (18%)
BMI (kg/m ²)	28.0 (5.1)	28.0 (5.0)
Cardiac parameters		
Heart rate (bpm)	79.7 (9.5)	80.1 (9.8)
SBP (mm Hg)	122.0 (16.1)	121.4 (15.9)
DBP (mm Hg)	75.7 (9.6)	75.6 (9.4)
LVEF (%)	29.0% (5.1)	29.0% (5.2)
eGFR (mL/min per 1.73 m ²)	74.6 (22.9)	74.8 (23.1)
NYHA class		
Class II	1585 (49%)	1584 (49%)
Class III	1605 (50%)	1618 (50%)
Class IV	50 (2%)	61 (2%)
Treatment at randomisation		
β blocker	2897 (89%)	2923 (90%)
ACE inhibitor	2565 (79%)	2551 (78%)
ARB	455 (14%)	472 (14%)
Diuretic drugs (excluding antidiuretic)	2719 (84%)	2695 (83%)
Antidiuretic agents	1981 (61%)	1941 (59%)
Cardiac glycosides	706 (22%)	710 (22%)
Devices	110 (3%)	134 (4%)
CRT	28 (1%)	44 (1%)
ICD	92 (3%)	115 (4%)





Heart rate reduction with ivabradine and health related quality of life in patients with chronic heart failure: results from the SHIFT study

Inger Ekman^{1,2*}, Olivier Chassany^{3,4}, Michel Komajda^{5,6}, Michael Böhm⁷, Jeffrey S. Borer⁸, Ian Ford⁹, Luigi Tavazzi¹⁰, and Karl Swedberg^{2,11}

Table 4 Change in heart rate and Kansas City Cardiomyopathy Questionnaire (KCCQ) overall summary score (OSS) and clinical summary score (CSS) from baseline to 12 months

Ivabradine (n = 968)		Placebo (n = 976)	Between-group difference for change at 12 months	
			Estimate (95% CI)	P-value
Heart rate (bpm), mean (SD)				
Baseline				
Change at 12 months				
			-10.1 (-11.10 to -9.00)	<0.0001
KCCQ CSS, mean (SD)				
Baseline		n = 842	n = 839	
Change at 12 months		69.1 (20.0)	69.0 (20.5)	
		5.0 (17.5)	3.3 (16.5)	1.8 (0.30-3.24) 0.018
KCCQ OSS, mean (SD)				
Baseline		n = 842	n = 839	
Change at 12 months		65.2 (20.0)	65.3 (19.8)	
		6.7 (17.3)	4.3 (16.7)	2.4 (0.91-3.85) <0.001

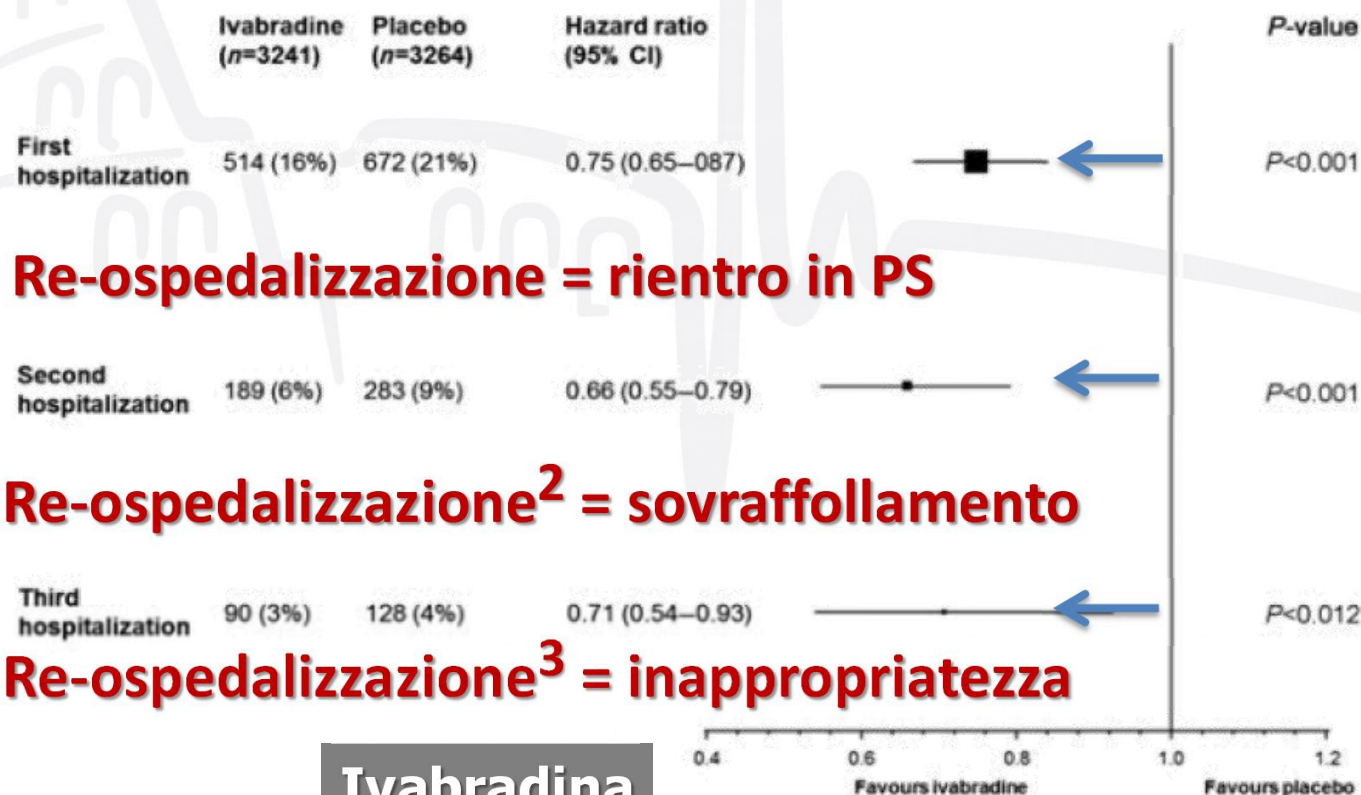
Qualità di vita



Effect of ivabradine on recurrent hospitalization for worsening heart failure in patients with chronic systolic heart failure: the SHIFT Study

Jeffrey S. Borer^{1*}, Michael Böhm², Ian Ford³, Michel Komajda⁴, Luigi Tavazzi⁵, Jose Lopez Sendon⁶, Marco Alings⁷, Esteban Lopez-de-Sa⁶, and Karl Swedberg⁸, on behalf of the SHIFT Investigators

Eur Heart J. 2012

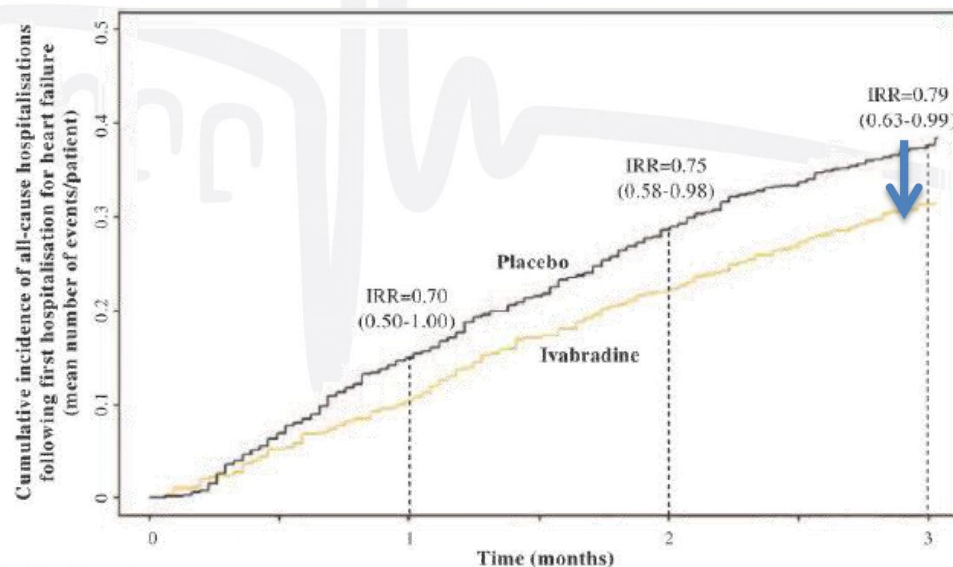




Chronic exposure to ivabradine reduces readmissions in the vulnerable phase after hospitalization for worsening systolic heart failure: a post-hoc analysis of SHIFT

Michel Komajda^{1*}, Luigi Tavazzi², Karl Swedberg³, Michael Böhm⁴, Jeffrey S. Borer⁵, Aurélie Moyne⁶, and Ian Ford⁷, on behalf of the SHIFT Investigators

Investimento ottimo



**Ivabradina
riduce
Riammissione
in PS**

Ivabradine/placebo

Patients at risk 514/672

Number of events 0/0

454/590

54/102

424/551

115/201

398/524

166/278

Approccio ABCDE e SC

G. Pepe

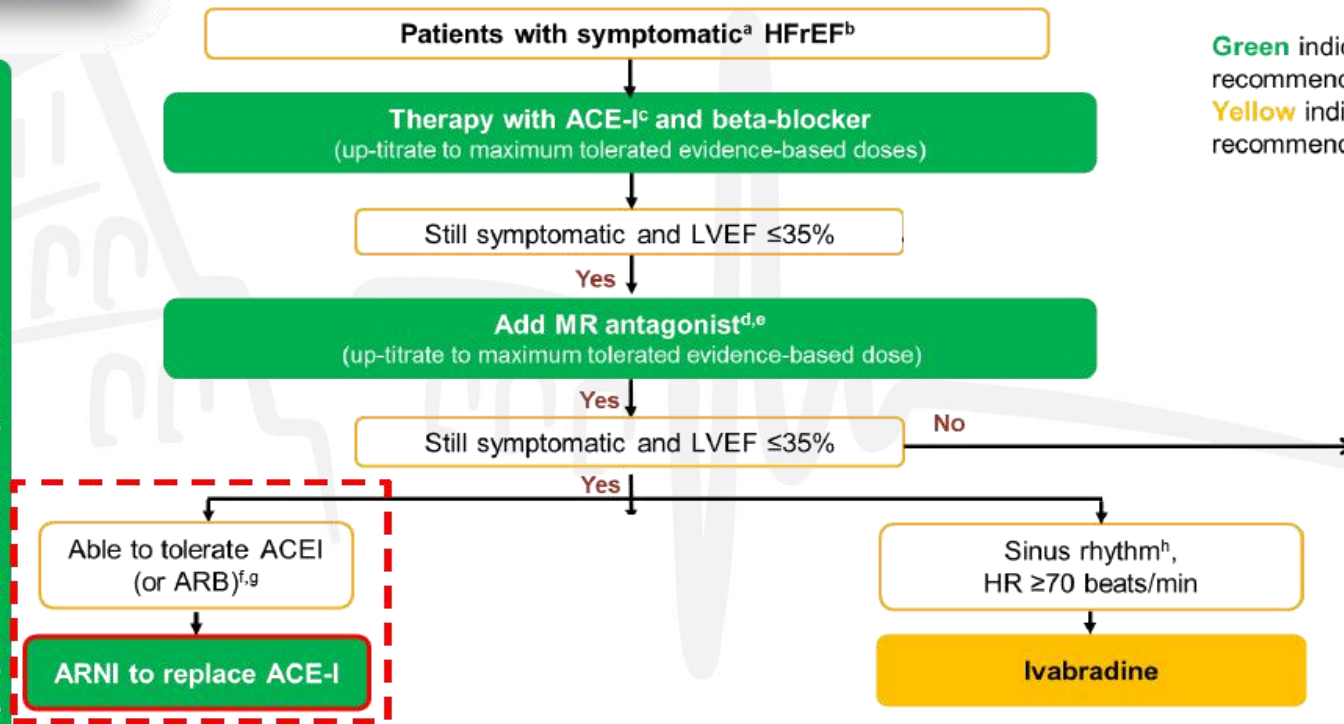
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Green indicates a **class I** recommendation;
Yellow indicates a **class IIa** recommendation.

Diuretics to relieve symptoms and signs of congestion
If LVEF $\leq 35\%$ despite OMT or a history of symptomatic VT/VF, implant ICD



Pharmacological treatments indicated in patients with symptomatic (NYHA Class II-IV) HFrEF

Recommendations	Class	Level
Sacubitril/valsartan is recommended as a replacement for an ACEi to further reduce the risk of HF hospitalization and death in ambulatory patients with HFrEF who remain symptomatic despite optimal treatment with an ACEi, a beta-blocker and an MRA*	I	B



ORIGINAL ARTICLE

Angiotensin–Neprilysin Inhibition
versus Enalapril in Heart Failure

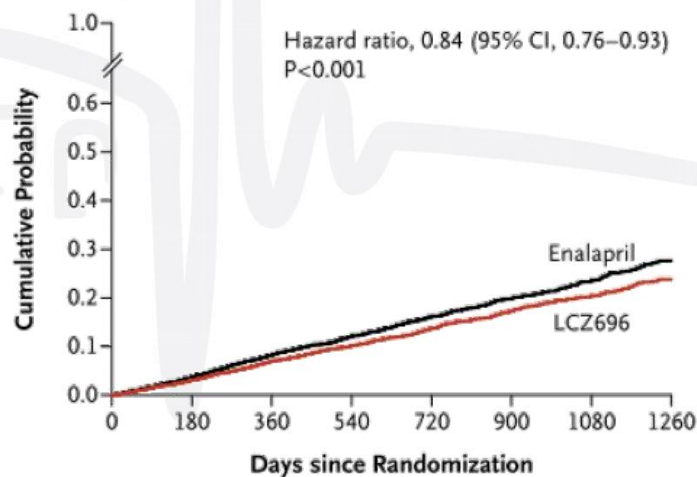
John J.V. McMurray, M.D., Milton Packer, M.D., Akshay S. Desai, M.D., M.P.H.,
Jianjian Gong, Ph.D., Martin P. Lefkowitz, M.D., Adel R. Rizkala, Pharm.D.,
Jean L. Rouleau, M.D., Victor C. Shi, M.D., Scott D. Solomon, M.D.,
Karl Swedberg, M.D., Ph.D., and Michael R. Zile, M.D.,
for the PARADIGM-HF Investigators and Committees*

Sacubitril/Valsartan

8442 pts
NYHA II, III, or IV
EF ≤ 40%

LCZ696 200 mg bid
or
Enalapril 10 mg bid

D Death from Any Cause



No. at Risk

LCZ696	4187	4056	3891	3282	2478	1716	1005	280
Enalapril	4212	4051	3860	3231	2410	1726	994	279

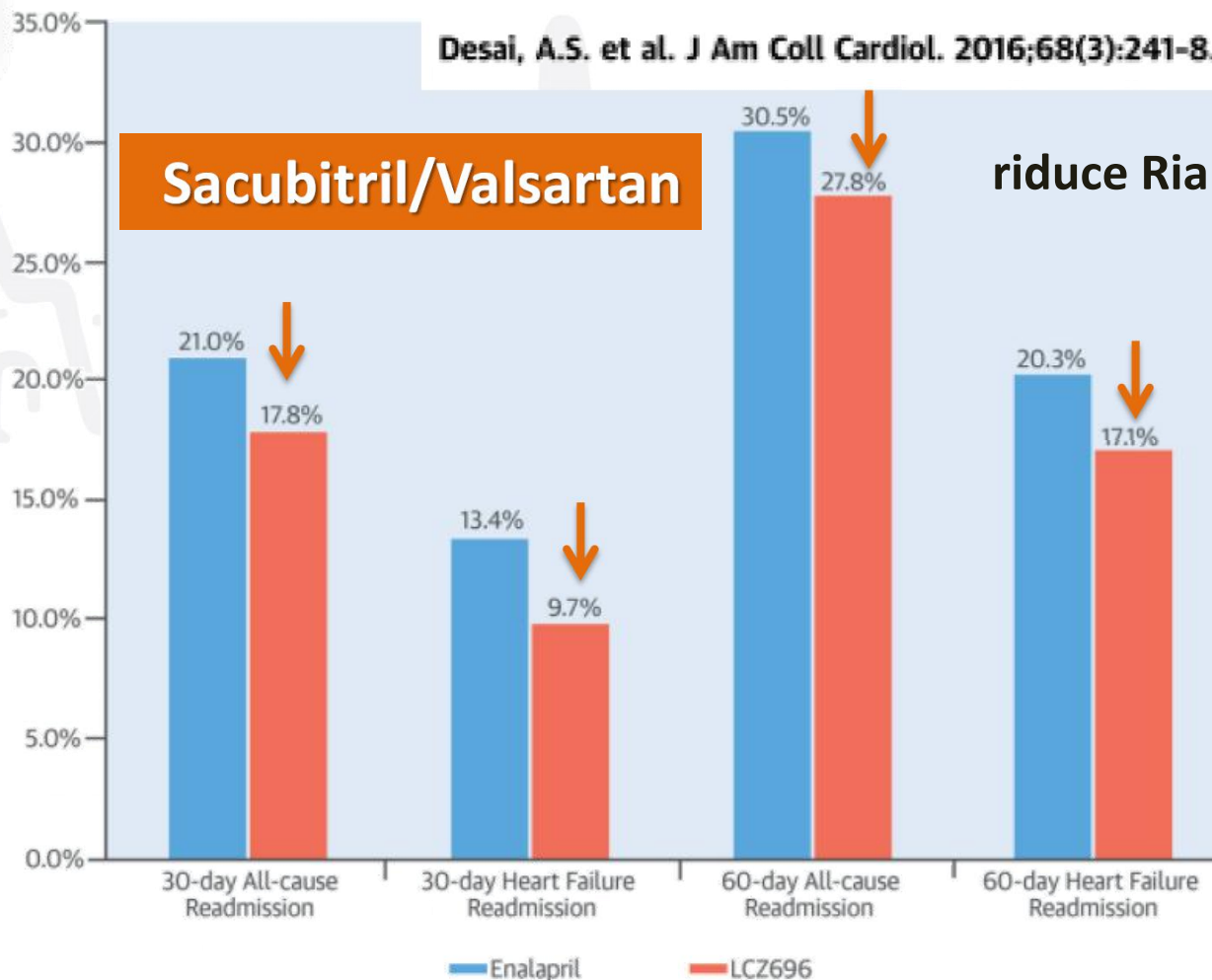


Influence of Sacubitril/Valsartan (LCZ696) on 30-Day Readmission After Heart Failure Hospitalization

Approccio ABCDE e SC

G. Pepe

Desai, A.S. et al. J Am Coll Cardiol. 2016;68(3):241-8.

Sacubitril/Valsartan**riduce Riammissione in PS****Investimento
ottimo**



Approccio ABCDE e SC

G. Pepe

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Patients with symptomatic^a HFrEF^b

Therapy with ACE-I^c and beta-blocker
(up-titrate to maximum tolerated evidence-based doses)

Still symptomatic and LVEF $\leq 35\%$

Yes

Add MR antagonist^{d,e}
(up-titrate to maximum tolerated evidence-based dose)

Yes

Still symptomatic and LVEF $\leq 35\%$

No

Able to tolerate ACEI
(or ARB)^{f,g}

ARNI to replace ACE-I

Sinus rhythm^h,
HR ≥ 70 beats/min

Ivabradine

These above treatments may be combined if indicated

Resistant symptoms

Yes

Consider digoxin or H-ISDN or LVAD, or
heart transplantation

Digossina

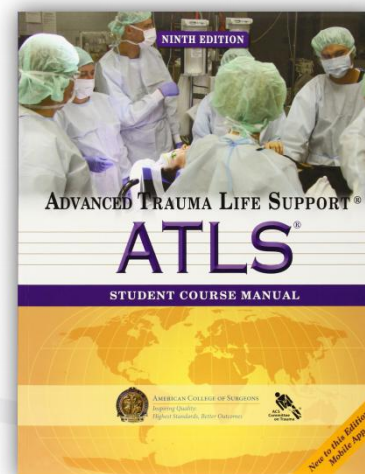
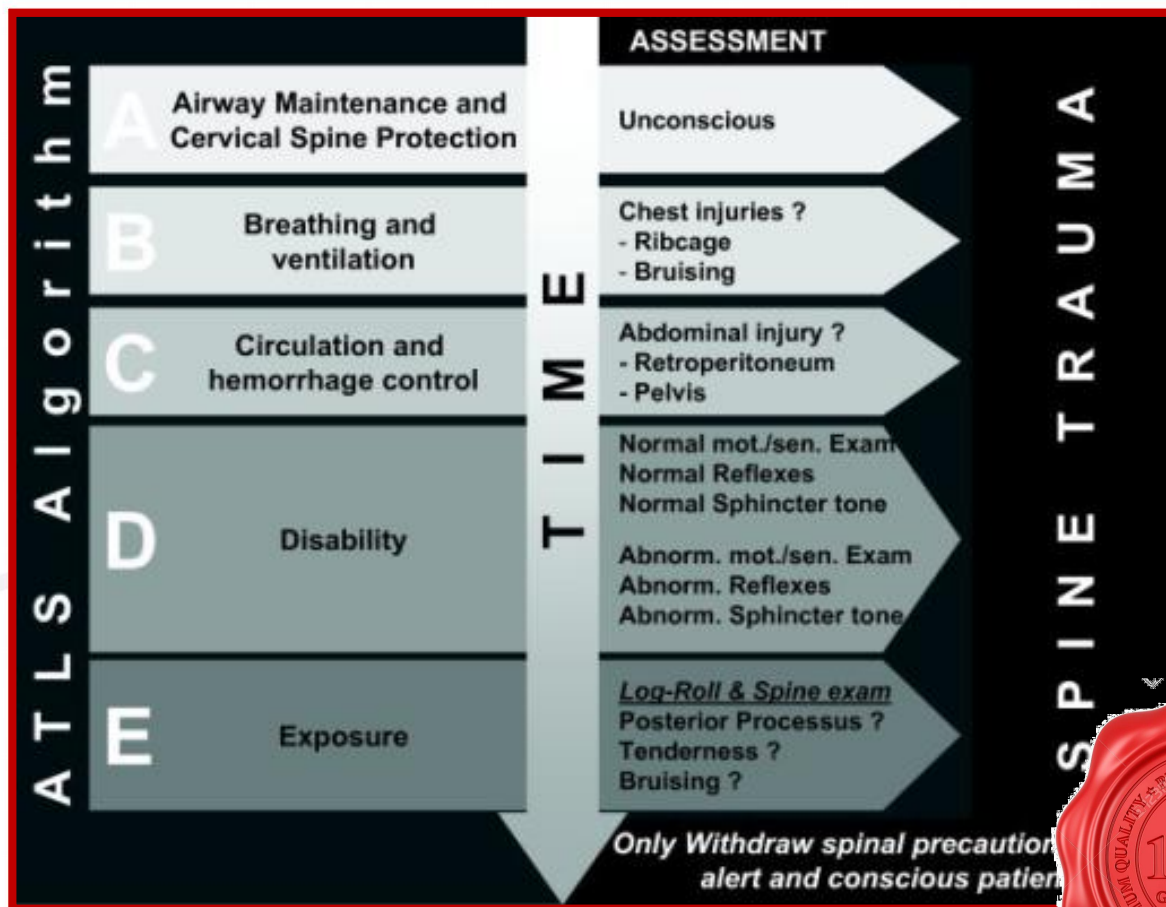
No

No further action required.
Consider reducing diuretic dose

Diuretics to relieve symptoms and signs of congestion

If LVEF $\leq 35\%$ despite OMT or a history of
symptomatic VT/VF, implant ICD

L'approccio ABCDE nel trauma: procedurale





Estratto



Ijem – Italian Journal of Emergency Medicine

Category: Review

L'approccio ABCDE nello scompenso cardiaco in emergenza urgenza: un nuovo algoritmo decisionale per la gestione clinico/terapeutica

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Autori
Giuseppe Pepe (1), Andrea Pavellini(1), Matteo Castelli(1), Simone Vanni(1), Peiman Nazerian(1), Stefano Grifoni(1)

1) Dipartimento di Emergenza ad Alta Specialità, Medicina e Chirurgia d'Urgenza e Accettazione, Azienda Ospedaliero Universitaria Careggi, Firenze

Introduzione

Lo scompenso cardiaco (SC) è l'espressione clinica dell'insufficienza cardiaca acuta o cronica riacutizzata; esistono molteplici condizioni (anomalie cardiache strutturali o funzionali) in grado di determinare una riduzione della gittata cardiaca (dysfunzione sistolica) o un incremento delle pressioni intracardiache di riempimento (dysfunzione diastolica), che possono condurre alle manifestazioni cliniche (dispnea, cardiopalmi, edemi declivi).

Lo SC è un problema sanitario tra i più rilevanti nei paesi industrializzati, con incidenza e prevalenza che aumentano con l'età. Interessa l'1-2% della popolazione adulta e più del 10% della popolazione di età superiore ai 70 anni.

In Italia, l'incidenza dello SC è pari allo 0,1-0,2% (87.000 nuovi casi all'anno) con una prevalenza dello 0,3-2% (circa 500.000 soggetti).

Lo SC acuto è una causa frequente di accesso al Pronto Soccorso, e negli over 65 è la principale causa di ospedalizzazione. Rappresenta una condizione medica ad elevata mortalità pertanto richiede una valutazione e un trattamento urgente.

Lo SC è caratterizzato da segni e sintomi legati al sovraccarico di fluidi (dispnea, ortopnea, dispnea parossistica notturna, astenia, segni di congestione epatica e polmonare, edemi declivi, turgore jugulare) e all'ipoperfusione tissutale (ridotta tolleranza allo sforzo,

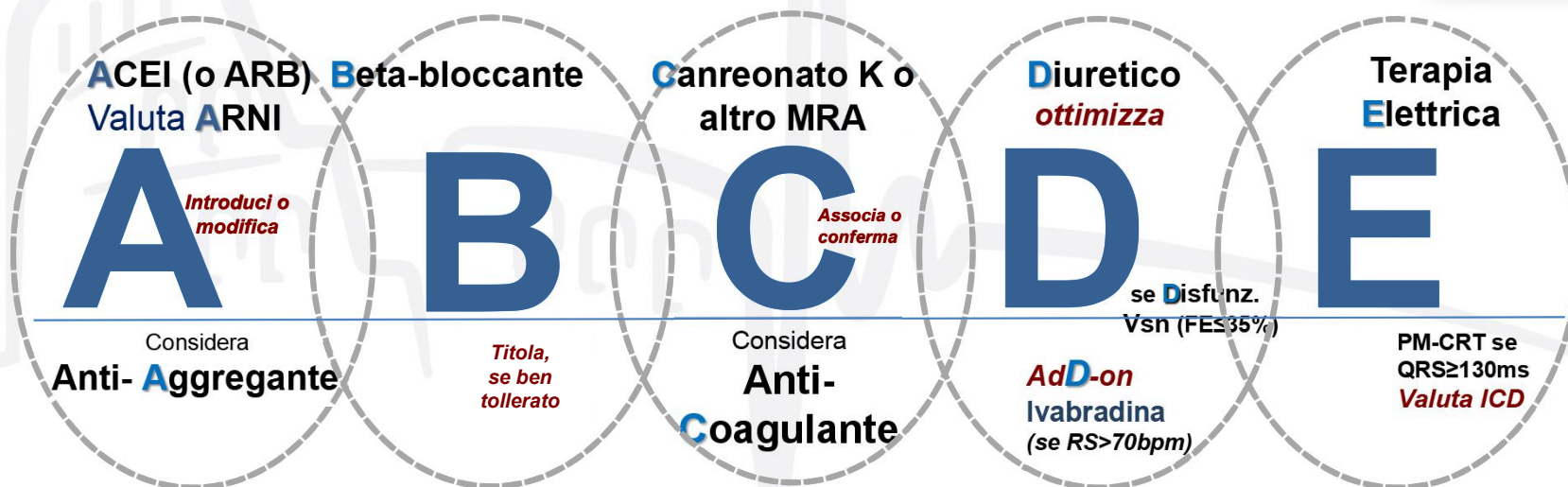
L'approccio ABCDE Nello Scompenso Cardiaco In Emergenza Urgenza: *Un Nuovo Algoritmo Decisionale Per La Gestione Clinico/Terapeutica*

Certificazione Best Practice anche nello SC

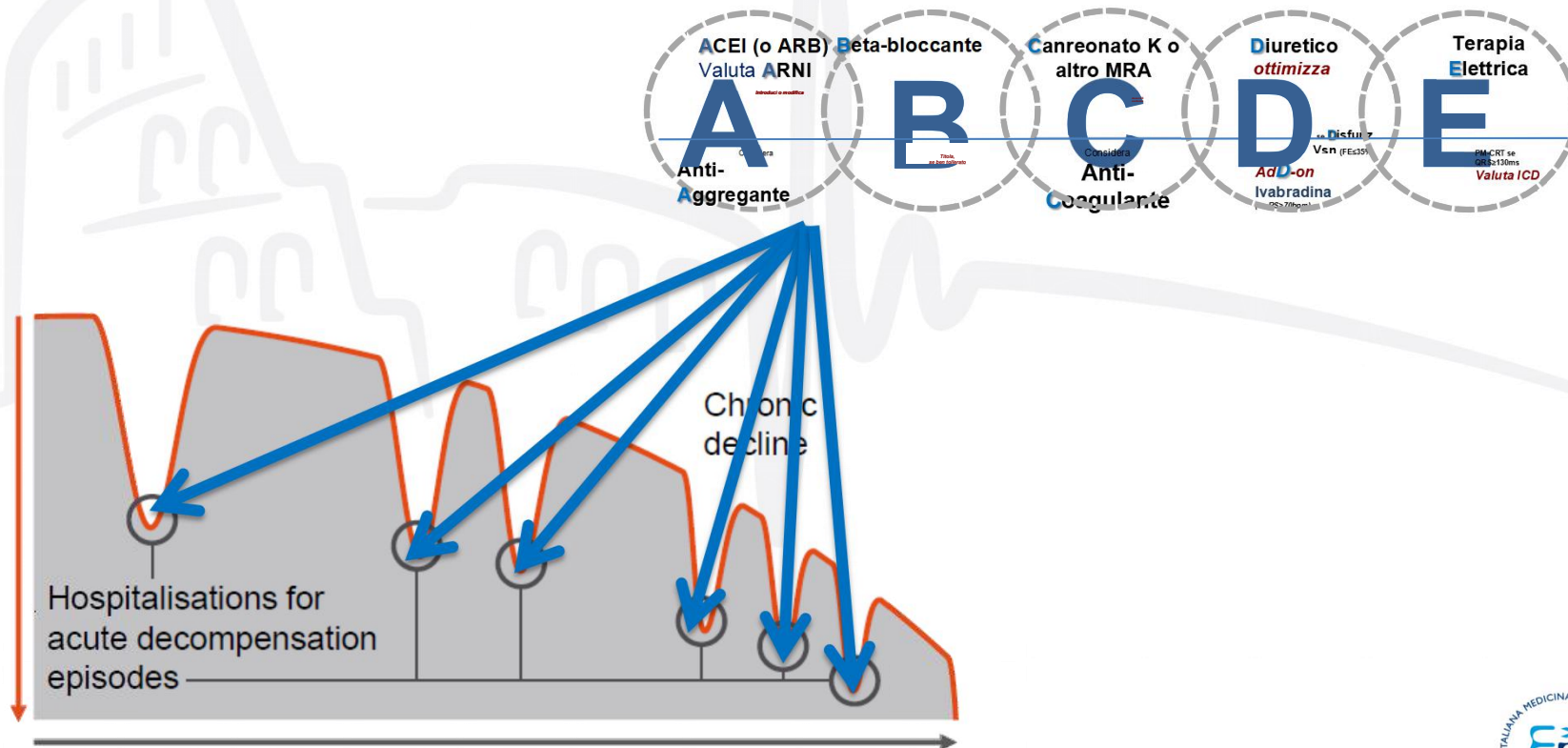




Approccio Terapeutico



Quando l'ABCDE



Perché l'ABCDE



revolving door heart failure

Come l'ABCDE

- Implementazione Linee Guida sistematica *attraverso l'utilizzo dell'ABCDE*



- **TERAPIE innovative**
 - *che riducono la mortalità*
 - *che riducono la re-ospedalizzazione*
 - *che accorciano la durata del ricovero*
- **Integrazione H-T**

ivabradina

Sacubitril/valsartan

Dalbavancin



Approccio ABCDE e SC

G. Pepe

"amici del PS"



.... tutti i players che hanno cooperano nel
miglioramento di

- Tempo di attesa,
- Tempo di processo
- Esito (ricovero/dimissione)
- Riduzione dei rientri



Approccio ABCDE e SC

G. Pepe



Grazie

1. Decongestioniamo: con attenzione ma senza paura.

2. “I tre moschettieri”: prescriviamoli di più, ottimizziamo il dosaggio, attenzione all’aderenza con approccio collaborativo multidisciplinare.

3. Attenzione alla fase di transizione, dove Ivabradina può essere “il miglior amico del betabloccante”

4. ARNI: il futuro è roseo

Segreteria Nazionale:

Via Valprato, 68 - 10155 Torino
c.f. 91206690371
p.i. 02272091204

Contatti:

tel +39 02 67077483
fax +39 02 89959799
segreteria@simeu.it



XI congresso nazionale

simeu

ROMA 24-26 MAGGIO 2018





"Quando la traiettoria della malattia è verso le cure palliative"

Table 28 Patients in whom palliative care should be considered

- | |
|--|
| • Frequent admission to hospital or other serious episodes of decompensation despite optimized treatment |
| • Heart transplantation and mechanical circulatory support ruled out |
| • Chronic poor quality of life with NYHA class IV symptoms |
| • Cardiac cachexia/low serum albumin |
| • Dependence in most activities of daily living |
| • Clinically judged to be close to the end of life |

- **Accessi Ospedalieri frequenti**
- **Non candidabilità a trapianto**
- **NYHA IV e scarsa qualità di vita**
- **Cachessia**
- **Dipendenza ADL**
- **Stadio terminale**

NYHA = New York Heart Association.

ESC Guidelines – Heart Failure 2012

.... il medico Internista Ospedaliero può concordare con il paziente/famiglia ed il MMG, la più corretta (ed unica) gestione territoriale/domiciliare

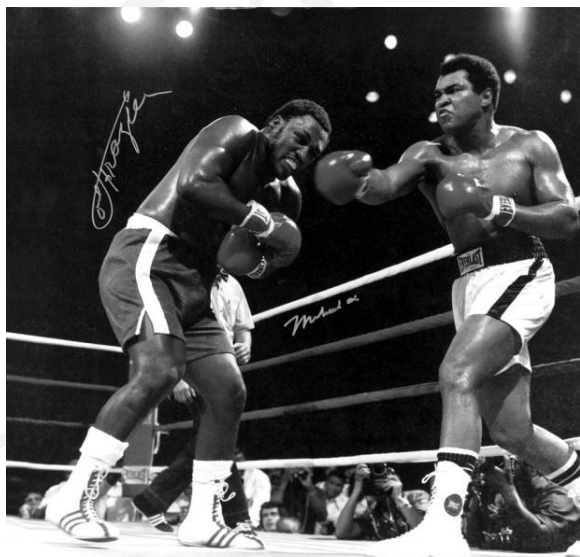
Una possibile “innovazione” nel percorso (domiciliare) del paziente con SC cronico riacutizzato/terminale ?

Elastomero



Terapia diuretica (parenterale) infusione continua al domicilio – 24/48 h

I punti di vista ...



Il **medico d'Urgenza** deve ragionare
in termini di "sensibilità"
– rule-out) ... ***SENS-OUT***

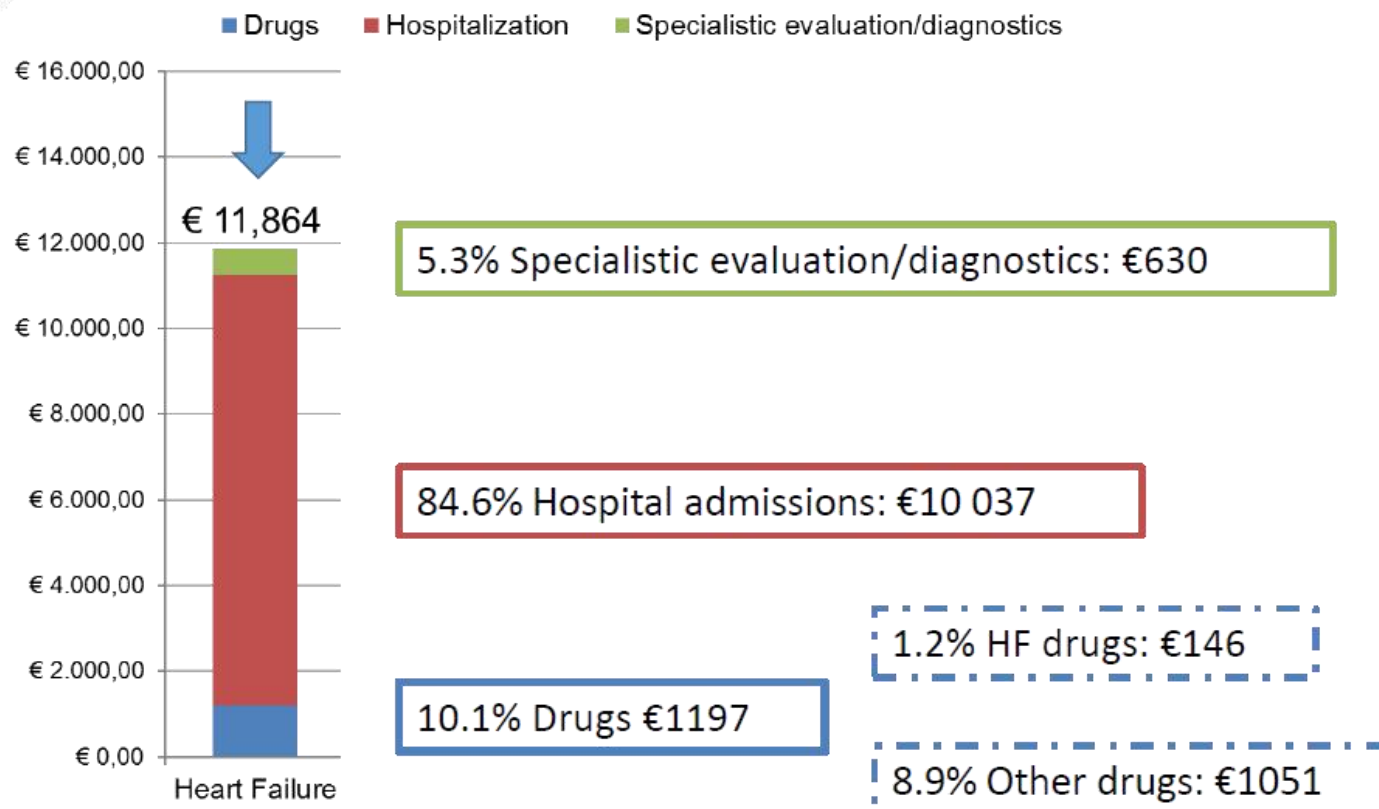
il **cardiologo** invece ragiona in
"specificità" (ricovero appropriato –
rule-in) ***SPEC-IN***



The real-world evidence of heart failure: findings from 41 413 patients of the ARNO database

Aldo P. Maggioni^{1,*}, Francesco Orso^{1,2}, Silvia Calabria³, Elisa Rossi⁴, Elisa Cinconze⁴, Samuele Baldasseroni⁵, and Nello Martini⁶, on behalf of the ARNO Observatory[†]

Costs per patient per year





Approccio ABCDE e SC

G. Pepe

Are hospitalized or ambulatory patients with heart failure treated in accordance with European Society of Cardiology guidelines? Evidence from 12 440 patients of the ESC Heart Failure Long-Term Registry

Treatments	Total population (n = 7041), %	Reduced EF ($\leq 45\%$) (n = 4792), %
ACE-I/ARBs	89.2	92.2
ACE-I	67.0	70.7
Ramipril	43.9	45.8
Enalapril	27.5	27.2
Perindopril	14.5	12.6
Beta-blockers	88.9	92.7
Carvedilol	40.7	40.6
Bisoprolol	40.8	42.0
Metoprolol	11.0	10.7
ARBs	23.9	23.5
Candesartan	27.8	31.6
Losartan	27.0	27.3
Valsartan	30.0	28.6
MRAs	59.3	67.0
Spironolactone	68.3	66.7
Eplerenone	23.7	24.5
Canrenone	4.3	4.6

Estratto



Italian Journal of
Emergency Medicine
SIMEU

Itjem – Italian Journal of Emergency Medicine

Category: Review

L'approccio ABCDE nello scompenso cardiaco in emergenza urgenza: un nuovo algoritmo decisionale per la gestione clinico/terapeutica

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Autori
Giuseppe Pepe (1), Andrea Pavellini(1), Matteo Castelli(1), Simone Vanni(1), Peiman Nazerian(1), Stefano Grifoni(1)

1) Dipartimento di Emergenza ad Alta Specialità. Medicina e Chirurgia d'Urgenza e Accettazione, Azienda Ospedaliero Universitaria Careggi, Firenze

Introduzione

Lo scompenso cardiaco (SC) è l'espressione clinica dell'insufficienza cardiaca acuta o cronica riacutizzata; esistono molteplici condizioni (anomalie cardiache strutturali o funzionali) in grado di determinare una riduzione della gittata cardiaca (disfunzione sistolica) o un incremento delle pressioni intracardiache di riempimento (disfunzione diastolica), che possono condurre alle manifestazioni cliniche (dispnea, cardiopalmo, edemi declivi).

Lo SC è un problema sanitario tra i più rilevanti nei paesi industrializzati, con incidenza e prevalenza che aumentano con l'età. Interessa l'1-2% della popolazione adulta e più del 10% della popolazione di età superiore ai 70 anni.

In Italia, l'incidenza dello SC è pari allo 0,1-0,2% (87.000 nuovi casi all'anno) con una prevalenza dello 0,3-2% (circa 600.000 soggetti).

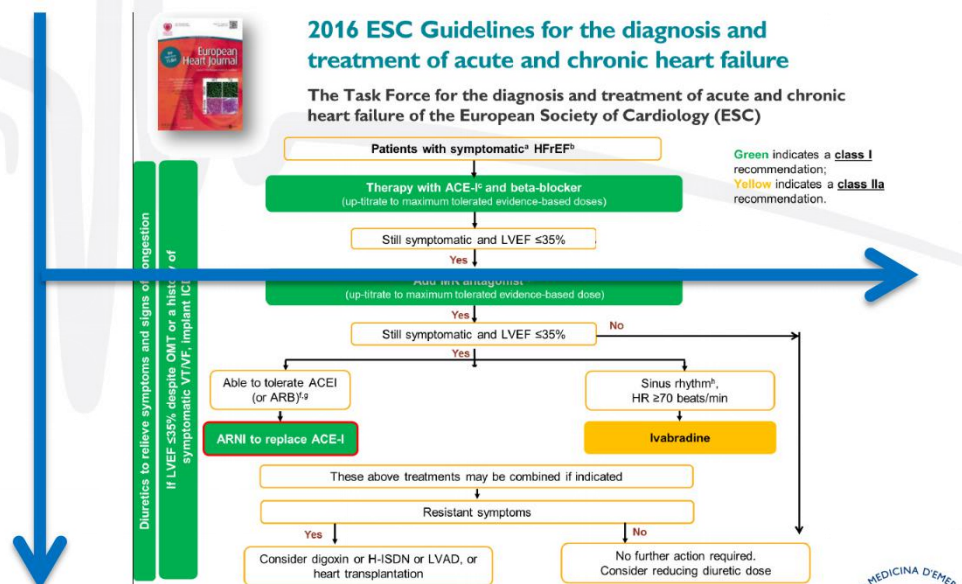
Lo SC acuto è una causa frequente di accesso al Pronto Soccorso, e negli over 65 è la principale causa di ospedalizzazione. Rappresenta una condizione medica ad elevata mortalità pertanto richiede una valutazione e un trattamento urgente.

Lo SC è caratterizzato da segni e sintomi legati al sovraccarico di fluidi (dispnea, ortopnea, dispnea parossistica notturna, astenia, segni di congestione epatica e polmonare, edemi declivi, turgore jugolare) e all'ipoperfusione tissutale (ridotta tolleranza allo sforzo,

L'approccio ABCDE Nello Scompenso Cardiaco In Emergenza Urgenza: *Un Nuovo Algoritmo Decisionale Per La Gestione Clinico/Terapeutica*

2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure

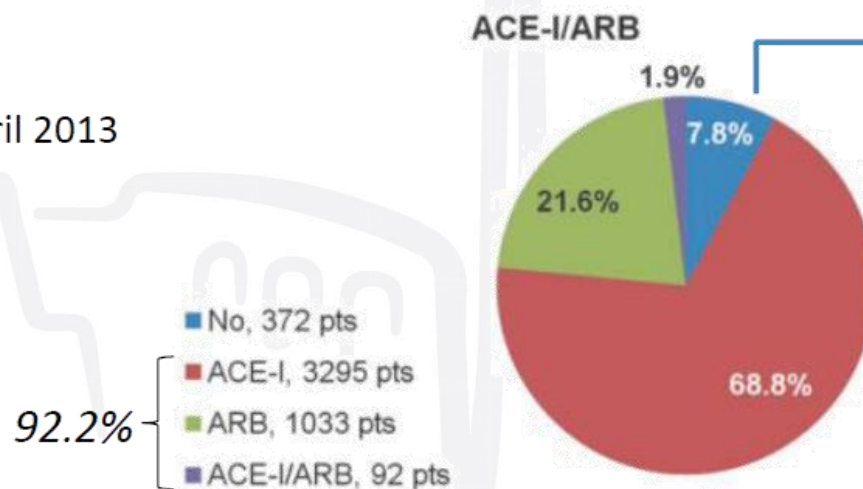
The Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC)





Are hospitalized or ambulatory patients with heart failure treated in accordance with European Society of Cardiology guidelines? Evidence from 12 440 patients of the ESC Heart Failure Long-Term Registry

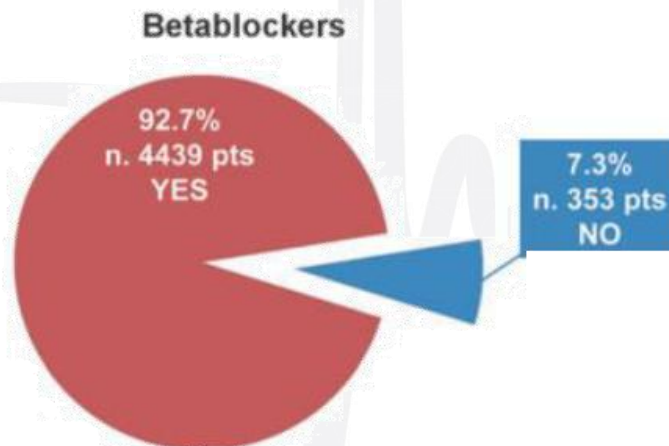
May 2011 to April 2013





Are hospitalized or ambulatory patients with heart failure treated in accordance with European Society of Cardiology guidelines? Evidence from 12 440 patients of the ESC Heart Failure Long-Term Registry

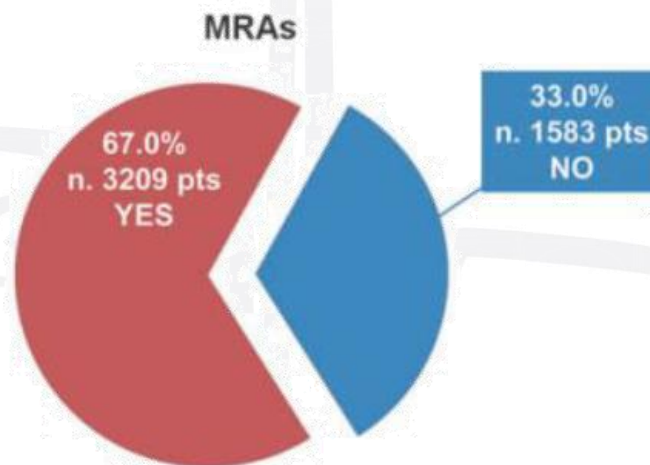
May 2011 to April 2013





Are hospitalized or ambulatory patients with heart failure treated in accordance with European Society of Cardiology guidelines? Evidence from 12 440 patients of the ESC Heart Failure Long-Term Registry

May 2011 to April 2013





L'approccio ABCDE in medicina

THE 'ABCDE' OF MALARIA PREVENTION

**A****AWARENESS**Be **Aware** of the risk and the symptoms.
**World
Malaria
Day**
 April 25
**B****BITE PREVENTION**Avoid being **Bitten** by mosquitoes, especially between dusk and dawn.**C****CHEMOPROPHYLAXIS**If prescribed for you, use **Chemoprophylaxis** (antimalarial medication) to prevent infection.**D****DIAGNOSIS**Immediately seek **Diagnosis** and treatment if a fever develops one week or more after being in a malarial area (up to one year after departure).**E****EMERGENCY**Carry a Stand-By **Emergency** Treatment kit if available and recommended (the kit that contains malaria treatment).

ATRIAL FIBRILLATION MANAGEMENT

"ABCDE"**A****ANTICOAGULANTS**

To prevent embolization.

B**BETA-BLOCKERS**

To block the effects of certain hormones on the heart to slow the heart rate.

C**CALCIUM CHANNEL BLOCKERS**

Help slow the heart rate by blocking the number of electrical impulses that pass through the AV node into the lower heart chambers (ventricles).

D**DIGOXIN**

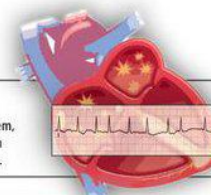
Helps slow the heart rate by blocking the number of electrical impulses that pass through the AV node into the lower heart chambers (ventricles).

E**ELECTROCARDIOVERSION**

A procedure in which electric currents are used to reset the heart's rhythm back to regular pattern.

LEARN MORE: ATRIAL FIBRILLATION

Atrial fibrillation is the most common sustained atrial arrhythmia. A variety of medicines are available to restore normal heart rhythm. A beta-blocker, such as bisoprolol or atenolol, or a calcium channel blocker, such as verapamil or diltiazem, will be prescribed. Digoxin may be added to help control the heart rate further. In some cases, amiodarone may be tried, or simply remember the mnemonic ABCDE.



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