

Programma educazionale in Medicina delle Catastrofi per medici d'urgenza

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AUO Maggiore della Carità - Novara



Centro di Ricerca Interdipartimentale in Medicina di Emergenza e dei
Disastri e Informatica applicata alla didattica ed alla pratica Medicina

DISASTER MEDICINE

“The science for analysis and development of the methodology requested to handle situations where available resources are insufficient in relation to the immediate need of medical care”

Lennquist S: Definition of the science of disaster medicine.
Int J Dis Med. 2004; 3; 67-70



Medicina dei disastri: le competenze minime

- ✓ Conoscenza specifica dell'organizzazione, della logistica e degli aspetti medici normalmente diversi dalle normali attività
- ✓ Non tutte le vittime possono ricevere lo stesso livello di cura nello stesso momento: inevitabilità del triage.
- ✓ Bisogno di stabilire priorità e semplificare le azioni diagnostiche e terapeutiche per essere efficienti in condizioni di limitate risorse
- ✓ Specifiche competenze in ambito di comando, controllo e coordinamento
- ✓ Attività come parte di un piano integrato; conoscere e relazionarsi ed integrarsi con le differenti agenzie coinvolte



I disastri e la medicina dei disastri

- Le differenze dall'emergenza ordinaria (o anche negli incidenti maggiori) **non sono solo di ordine quantitativo**



La gestione delle conseguenze di un disastro è uno dei compiti più difficile nell'ambito delle attività sanitarie dovendo fare:

“the best for the most rather than the best for everyone” - A shift from optimizing individual to maximizing population outcome (K. Koenig)





Emergency and Disaster Medicine

Editorial 63 •

Disaster medicine is an integral component of emergency medicine

Colin A. Graham

European Journal of Emergency Medicine 2011, 18:63

Emergency Medicine, Chinese University of Hong Kong, Hong Kong, China

Correspondence to Colin A. Graham, Emergency Medicine, Chinese University of Hong Kong, Hong Kong, China
E-mail: cagraham@cuhk.edu.hk

Disaster management, disaster medicine and emergency medicine

Frederick M Burkle Jr

Emergency medical services (EMS) are a critical component. Emergency physicians, managers, and responders have traditionally taken leadership roles in disaster medicine and management.

Emergency Medicine (2001) 13, 143–144

DISASTER 101: A NOVEL APPROACH TO DISASTER MEDICINE TRAINING FOR HEALTH PROFESSIONALS

Lancer A. Scott, MD (PI),* Deborah S. Carson, PHARM.D, FCCP,† and I. Brian Greenwell, BS‡

(...) June 2001, an American College of Emergency Physicians task force recommended that both residents and medical students achieve proficiency in the medical response to bioterrorism and weapons of mass destruction

(...) Other research underscores the need for resident subspecialty training, in particular, in Emergency Medicine, Anesthesiology, Family Medicine, Pediatrics, and Surgery as critical to the future success of local emergency preparedness plans

The Journal of Emergency Medicine, Vol. 39, No. 2, pp. 220–226, 2010

A Review of Competencies Developed for Disaster Healthcare Providers: Limitations of Current Processes and Applicability

Education and training are the cornerstones of disaster preparedness.

Elaine Daily RN, BS, FAHA, FCCM;¹ Patricia Padjen, RN, MBA, MS, PhD;²
Marvin Birnbaum, MD, PhD³

Prehosp Disaster Med 2010;25(5):387–395.

Disaster Medicine Training in Family Medicine: A Review of the Evidence

The literature suggests that physicians as a group are unprepared for this role,^{2–5} due to inadequate training^{5–7} and limited experience. Most professionals will not have real disaster response experience prior to being called to respond.

Mark K. Huntington, MD, PhD; Thomas F. Gavagan, MD, MPH

FAMILY MEDICINE

JANUARY 2011 • VOL. 43, NO. 1

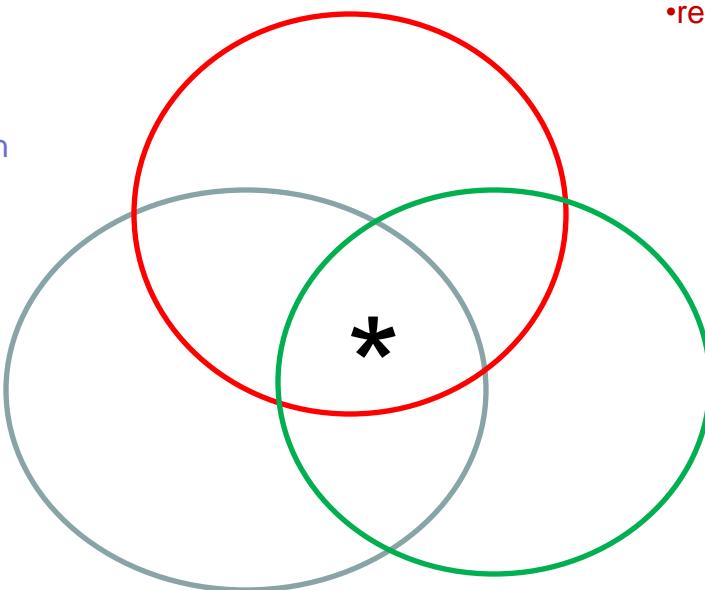
Emergency and Disaster Medicine

Disaster Incident Management

- site security
- urban search and rescue
- hazard analysis
- vulnerability reduction
- interagencies coordination
- medical logistics
- geographic information
- public information
- media relations
- community recovery

Clinical medicine

- prehosp care, treatment and transport
- standardised case management
- referral thresholds, rules for denial



Public health

- Rapid epidemiological assessment
- Environmental health
- Hazardous material handling and safety
- Epidemic preparedness
- Outbreak investigation
- Communicable disease control
- Immunisation program
- Disease surveillance
- Health policy and personnel planning

Bradt DA, Drummond CM: Professionalization of disaster medicine—An appraisal of criterion-referenced qualifications. *Prehospital Disast Med* 2007;22(5):360–368.



Epidemiological Ground

60% of global disasters occurred in Africa and Asia

80% of global disaster deaths and

90% of global disaster-affected populations

Perspective: Postearthquake Haiti Renews the Call for Global Health Training in Disaster Education

Natasha Archer, MD, Peter P. Moschovis, MD, MPH, and Paul Farmer, MD, PhD

Hos

Re: Abstract

On January 12, 2010, Haiti experienced one of the worst disasters in human history, a magnitude 7.0 earthquake, resulting in the deaths of approximately 222,000 Haitians and grievous injury to hundreds of thousands more.

International agencies, academic institutions, nongovernmental organizations, and associations

responded by sending thousands of medical professionals, including nurses, doctors, medics, and physical therapists, to support the underresourced Haitian health system. The volunteers who came to provide medical care to disaster

victims worked tirelessly under extremely challenging conditions, but in many cases they had no previous work experience in resource-limited settings, minimal training in tropical disease, and no knowledge of the historical background that contributed to the catastrophe. Often, this lack of preparedness hindered their ability to care adequately for their patients. The authors of this perspective argue that the academic medicine community must prepare medical trainees not only to treat the illnesses of patients in resource-limited settings but also to fight the

injustice that fosters disease and allows such catastrophes to unfold. The authors advocate purposeful attention to building global health curricula; providing adequate time, funding, and opportunity to work in resource-limited international settings; and ensuring sufficient supervision for trainees to work safely. They also call for an interdisciplinary approach to global health that both affirms health care as a fundamental human right and explores the historical, economic, and political causes of inequitable health care.

Tec

Pro

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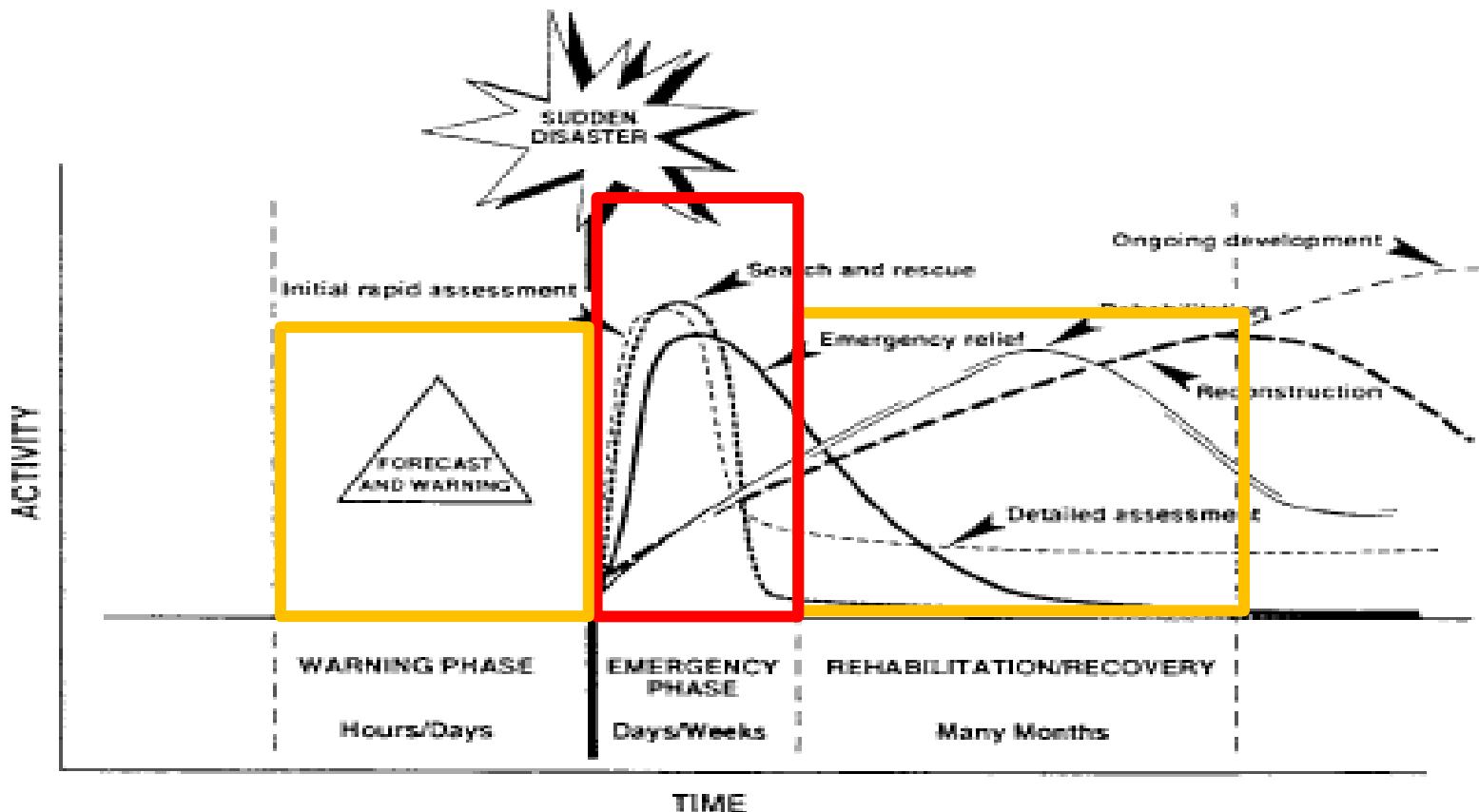
O

war naive

war prone

Bradt © 2007 Prehospital and Disaster Medicine

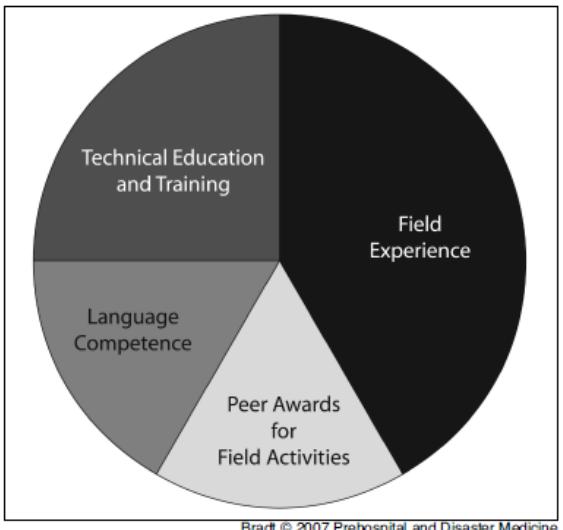
EPISODES AND ACTIVITIES IN RELATION TO THE RISKS AND OCCURENCE OF SUDDEN DISASTERS



DISASTER MEDICINE: an EM dependent discipline? ... NO

- Health professional and researchers from a broad spectrum of disciplines and specialties contribute to the knowledge base of disaster medicine science

- Specific needs should be taken into account



Education in Disaster Medicine

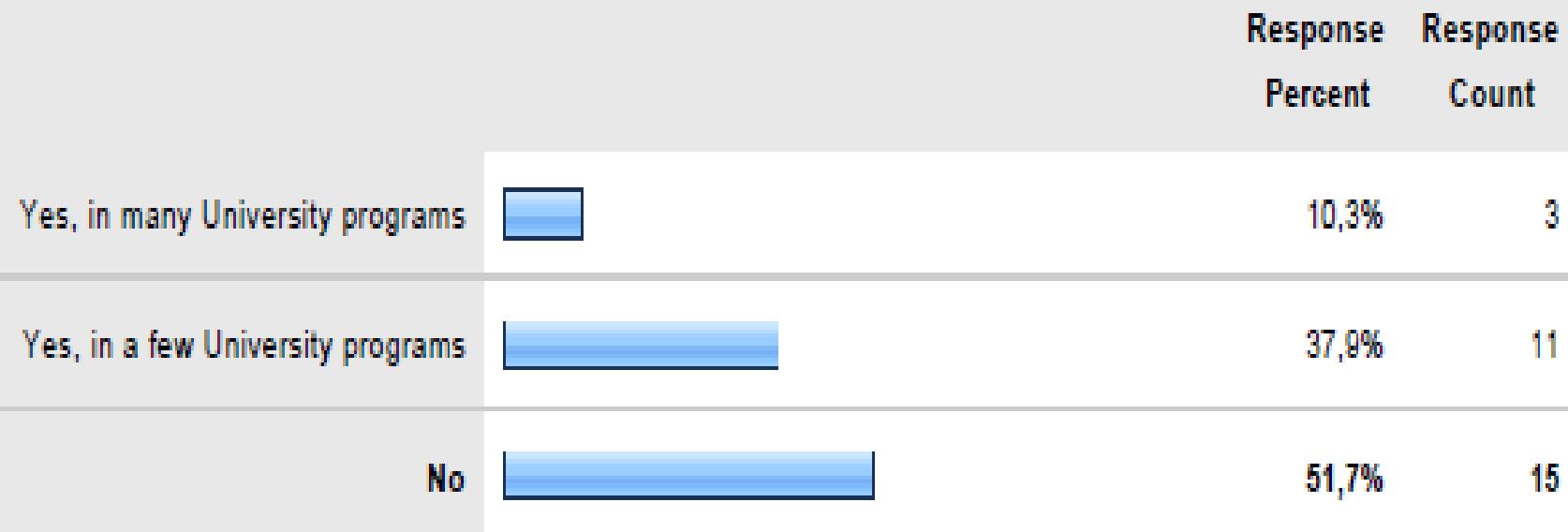
- Several studies on medical disaster preparedness and lessons learnt from recent disasters indicate a **lack of education and training** of the different parties involved in the medical management of disasters



- There currently are **no explicit inter-agency standards** for the education and training or evaluation of health personnel who respond to disasters

A Single European Response to Disasters

77. Are you aware of a DM curriculum for undergraduates students?



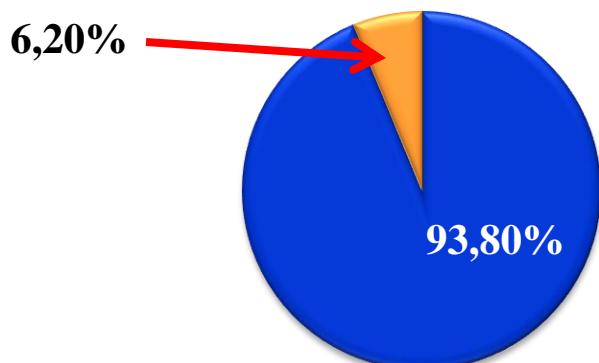
F. Della Corte, IFEM – Dublino, Giugno 2012

Education in Disaster Medicine: the role of medical schools

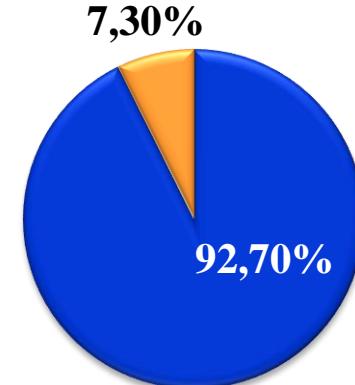
DM for undergraduates in Italy

Results of our cross-sectional observation study conducted through the diffusion of a web-based survey given to the last year medical students joining to SISM in 16 different universities. 868 students completed the survey.

93,80% of students think that
a basic knowledge of disaster
medicine is important for
their **medical education**



92,70% of students would
have liked to have disaster
medicine in their curricula

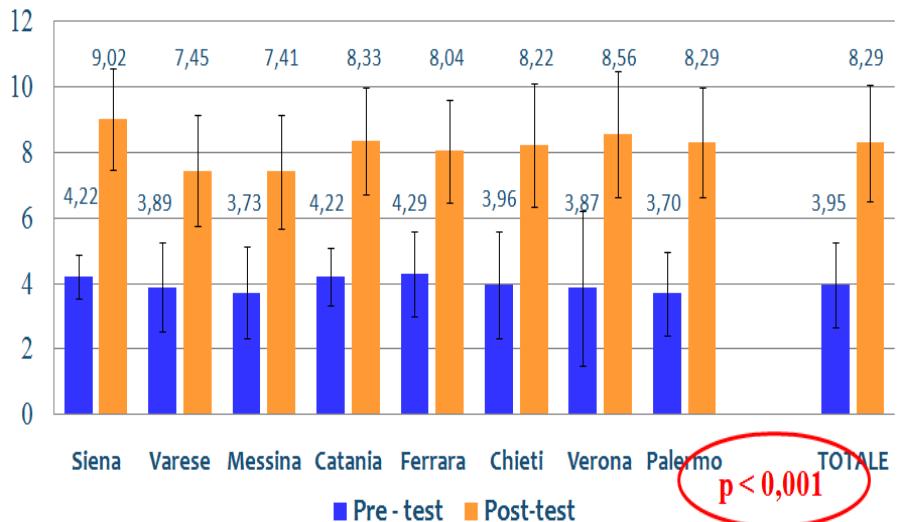


F. Della Corte et al , in press

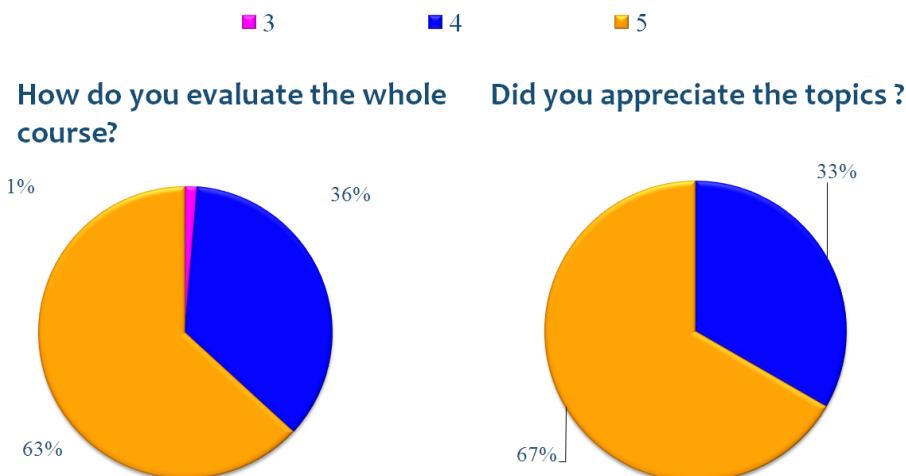
DISATERSISM

- 18 courses have taken place since the project started
- 16 Universities have been involved
- 263 students have been trained
- We focused our study on the 8 courses realized in the last 9 months

The project was able to increase the basic knowledge of medical students in Disaster Medicine topics



Most of the students really appreciated the whole course and the topics chosen for their education



Education in Disaster Medicine: the role of medical schools



Int J Emerg Med (2010) 3:9–20
DOI 10.1007/s12245-009-0140-9

ORIGINAL RESEARCH ARTICLE

Medical student disaster medicine education: the development of an educational resource

Ernst G. Pfenninger · Bernd D. Domres ·
Wolfgang Stahl · Andreas Bauer ·
Christine M. Houser · Sabine Himmelseher

International Journal of Disaster Medicine. 2004; 2: 135–147



ORIGINAL ARTICLE

Designing a curriculum in disaster medicine for Canadian medical schools

GARNET E. CUMMINGS¹ & FRANCESCO DELLA CORTE²

IN ITALIA

SCUOLA DI SPECIALIZZAZIONE IN MEDICINA D'EMERGENZA-URGENZA (SCUOLE DI AREA MEDICA - CLASSE DELLA MEDICINA CLINICA GENERALE)

La classe della MEDICINA CLINICA GENERALE e' integrata con la seguente tipologia:

Medicina d'Emergenza-Urgenza (accesso per laureati specialisti in Medicina e Chirurgia (classe 46/S) e ai laureati del vecchio ordinamento in Medicina e Chirurgia).

IN ITALIA

obiettivi formativi della tipologia della Scuola: lo Specializzando deve raggiungere la piena autonomia per poter operare nel sistema integrato delle emergenze-urgenze. In particolare: deve essere in grado di partecipare e gestire il soccorso extraospedaliero e di integrare le informazioni degli interventi preospedalieri per il rapido inquadramento e trattamento intraospedaliero; deve sapere inquadrare, rianimare, stabilizzare e trattare qualsiasi paziente con criticità che si presenti a strutture territoriali o ospedaliere, definendo anche l'ospedale più adatto o il percorso più idoneo per il trattamento del paziente; deve sapere stabilire le priorità d'intervento nei confronti di più pazienti, con differenti quadri clinici, giunti contemporaneamente nel Dipartimento di Emergenza-Accettazione al fine dell'ottimizzazione del trattamento; deve sapere trattare e gestire le vie aeree; deve sapere valutare la necessità di un eventuale trasferimento più appropriato, ovvero pianificare un corretto "piano di azione" e/o follow-up; deve essere in grado di fornire al paziente l'educazione sanitaria necessaria alla prevenzione delle malattie e dei traumatismi; deve sapere utilizzare correttamente le risorse diagnostiche e terapeutiche disponibili nelle differenti realtà operative; deve apprendere i principi per il trattamento di pazienti pediatrici, geriatrici e in gravidanza; deve conoscere le tecniche per comunicare efficacemente con i pazienti, i familiari e le altre figure professionali coinvolte nella gestione del paziente; deve possedere le conoscenze tecniche ed organizzative per la gestione delle emergenze correlate alle catastrofi; deve apprendere i principi etici coinvolti nel processo decisionale medico con riguardo anche per le direttive per la prosecuzione e il trattamento di sostegno alla vita. Lo specializzando deve anche conoscere gli aspetti legali e di organizzazione sanitaria della professione, nonché quelli del SSN, con particolare riferimento alle normative relative al sistema integrato dell'emergenza-urgenza.

Sono specifici ambiti di competenza dello specialista in Medicina d'Emergenza-Urgenza: la valutazione del grado di urgenza e/o delle priorità assistenziali in rapporto a tutti i fattori clinico-ambientali interferenti; la valutazione delle funzioni vitali e le manovre e le terapie per la rianimazione cardiopolmonare in urgenza e per la stabilizzazione del paziente; la fisiopatologia, la semeiotica funzionale e strumentale, la metodologia clinica, la diagnosi e la terapia in urgenza (farmacologica e strumentale) di qualsiasi patologia che si presenti con caratteristiche d'urgenza-emergenza; la epidemiologia e la gestione, per quanto di competenza, delle emergenze territoriali, incluse le catastrofi; la conoscenza e l'applicazione dei principi del management al fine della ottimizzazione delle risorse e degli standard di qualità; la ricerca etio-patogenetica, epidemiologica e clinico-terapeutica applicata alle emergenze-urgenze; la prevenzione degli incidenti e la promozione della salute.

IN ITALIA

Le attività caratterizzanti elettive a scelta dello studente utili all'acquisizione di specifiche e avanzate conoscenze nell'ambito della tipologia sono principalmente nei seguenti ambiti professionali:

Tossicologia. Lo specializzando potrà ulteriormente approfondire le proprie conoscenze tossicologiche anche in relazione ai servizi ausiliari, inclusi i laboratori tossicologici e i centri anti veleni, nel trattamento specifico degli avvelenamenti; e nella messa in atto di specifiche modalità terapeutiche, quali l'uso di antidoti, l'emodialisi, l'ossigenoterapia iperbarica, le aferesi.

Medicina delle catastrofi. Lo specializzando potrà ulteriormente approfondire le proprie conoscenze anche in relazione all'interfaccia tra sistema sanitario e non sanitario nella risposta ai disastri, alla gestione dei media e per la risposta organizzativa al terrorismo. Lo specializzando potrà inoltre approfondire le problematiche relative alle manifestazioni di massa e per l'organizzazione dei soccorsi alle popolazioni colpite da catastrofi.

Traumatologia. Lo specializzando potrà ulteriormente approfondire le proprie conoscenze anche in relazione al sistema di quality assurance (QA/QI); all'approfondimento delle metodiche di imaging disponibili per la valutazione del traumatizzato; per le considerazioni speciali nella valutazione e nel trattamento della gravida, di un bambino o di un anziano vittima di un trauma

Terapia intensiva e sub intensiva. Lo specializzando potrà ulteriormente approfondire le proprie conoscenze anche in relazione al monitoraggio del paziente ad elevata criticità, ulteriormente perfezionandosi nelle procedure e tecnologie per l'assistenza avanzata, approfondendo altresì i problemi organizzativi ed operativi .



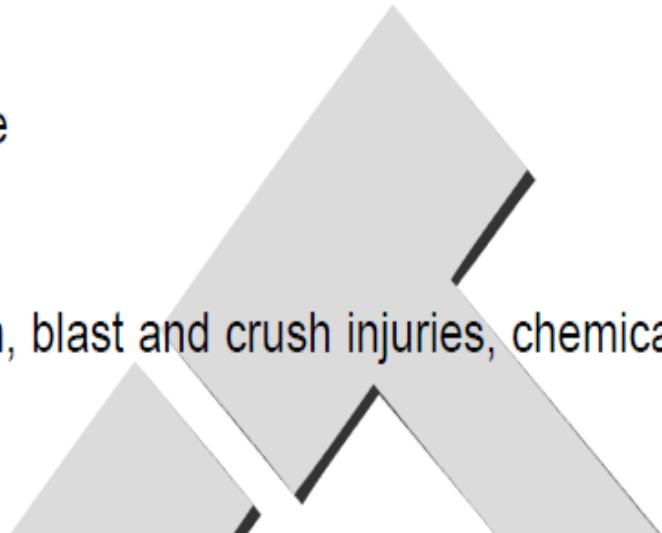
European Curriculum for Emergency Medicine

A document of the EuSEM Task Force on Curriculum
approved by the Council of the European Society for Emergency
Medicine and by the UEMS Multidisciplinary Joint Committee on
Emergency Medicine



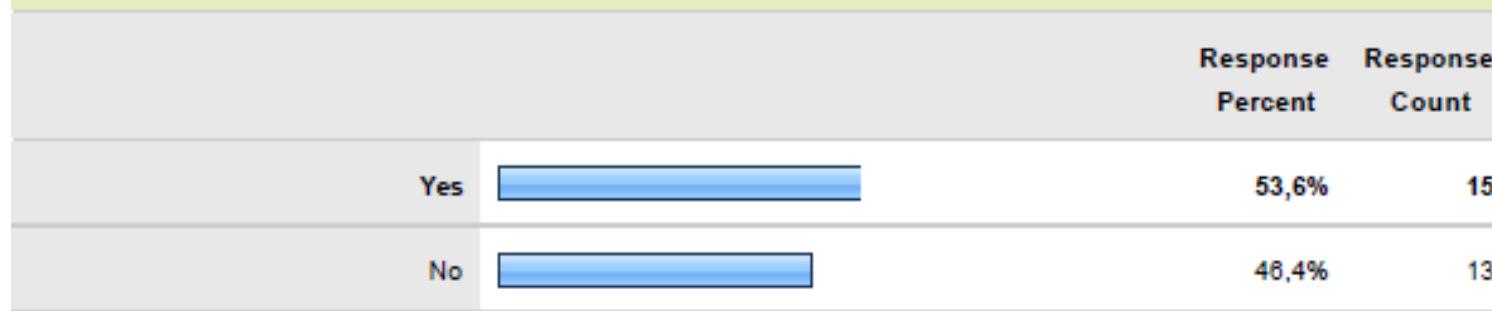
3.4.4 DISASTER MEDICINE

- Disaster preparedness
- Major incident planning/procedures/practice
- Disaster response
- Mass gatherings
- Specific medical topics (triage, bioterrorism, blast and crush injuries, chemical agents, radiation injuries)
- Debriefing and mitigation

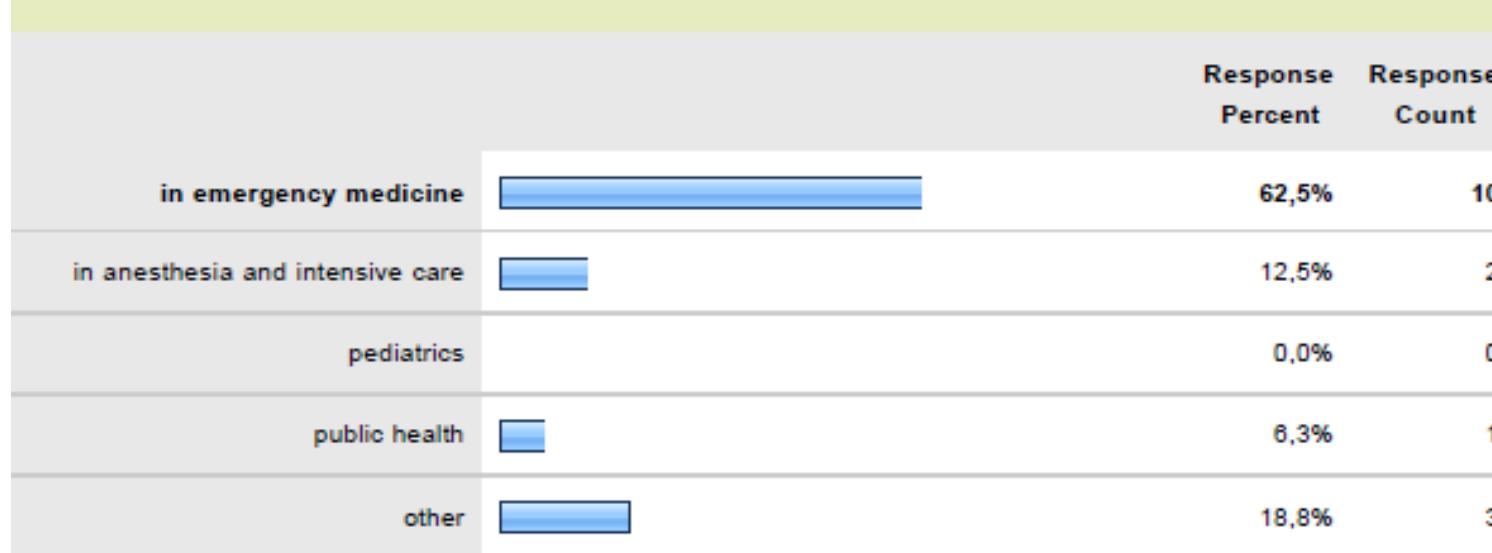


A Single European Response to Disasters

75. Is a DM curriculum formally included in postgraduate programs?



76. If yes, in which residency program



			Theoretical activity		Practical training	
Moduli	Hrs	ECTS Credits	Hrs	ECTS Credits	Hrs	ECTS Credits
M. 0 Introduction to Distance Learning	75	3	25	1	50	2
M.1 Introduction to Disaster Medicine	75	3	25	1	50	2
M.2 Research in Disaster Medicine	75	3	50	2	25	1
M. 3 General Medical Disaster Management	325	13	125	5	200	8
M.4 Specific medical disaster management	125	5	75	3	50	2
M.5 Disaster Mental Health	75	3	50	2	25	1
M.6 Education and Training in Disaster Medicine	75	3	25	1	50	2
M.7 Complex Humanitarian Emergencies	100	4	75	3	25	1
M.8 Legal, Ethical and Moral Aspects of Disaster Medicine	75	3	25	1	50	2
Thesis	500	20				
MASTER	1500	60	475	19	525	21

Education in Disaster Medicine: the role of scientific societies



AAFP Reprint No. 290
Recommended Curriculum Guidelines for Family Medicine Residents

Disaster Medicine

1068

ACADEMIC EMERGENCY MEDICINE DEC 1995 VOL 2/NO 12

SPECIAL CONTRIBUTIONS

Disaster Medicine: Current Assessment and Blueprint for the Future

*SAEM Disaster Medicine White Paper Subcommittee**

1995

REPORT 15 OF THE COUNCIL ON MEDICAL EDUCATION (A-09)
Education in Disaster Medicine and Public Health Preparedness During Medical School and Residency Training, 2009
Recommendations:

2. That our American Medical Association recommend that **formal education and training in disaster medicine and public health preparedness** should be incorporated into the curriculum at all medical schools and residency programs. (New HOD Policy)

3. That our AMA encourage medical schools and residency programs to utilize multiple methods, including **simulation, disaster drills, interprofessional team-based learning, and other interactive formats** for teaching disaster medicine and public health preparedness. (Directive to Take Action)

Education in Disaster Medicine: the role of scientific societies



Emergency Medicine Recognizes Disaster Medicine
Vol 1, Issue 2, February 2000
By George Podgorny, MD, FACS
(ACEP Past President)

Model Disaster Medicine Curriculum for Emergency Medicine Residency Programs

Jonathan Burstein, MD and Carl H. Schultz, MD

Approved by the Board of Directors, American College of Emergency Physicians, 2010

Also presented at the Council of United States Emergency Medicine Residency Directors (CORD) Annual Meeting, Orlando, Florida, 2010.

Education in Disaster Medicine: the role of scientific societies



Disaster Medicine Interest Group

Objectives

- Help identify the uniqueness of disaster response and care in emergency medicine
- Increase the awareness of disaster issues as they impact on emergency medicine, by creating a forum for discussion
- Assist members in the publication of articles germane to disaster emergency medicine
- Create resources for SAEM members
- Communicate with other emergency medicine organizations to open discussions on disaster issues



Education in Disaster Medicine: the role of scientific societies

DISASTER MEDICINE SPECIAL INTEREST GROUP

The objectives of the IFEM DMSIG are to:

1. Promote the sharing of information, resources and experiences between Disaster Medicine Special Interest Groups / Committees / Sub-Committees / Work Groups from various member countries of IFEM.
2. Promote networking of individuals with interest and expertise in Disaster Medicine from member countries of IFEM.
3. Promote collaboration in planning, education, training and research in Disaster Medicine between member countries of IFEM with particular emphasis on evidence based practice, access to quality education and advancing research.
4. Act as a point of contact for individuals, or organisations, seeking assistance in aspects of Disaster Medicine relevant to Emergency Medicine and to support development of local Emergency Physician disaster preparedness regardless of location.
5. Act as a liaison point and assist coordination of Disaster Medicine related sessions at conferences such as ICEM.
6. Promote the role of Emergency Physicians in Disaster Medicine.
7. Promote the role, and work, of IFEM as part of this.

ESPERIENZE



Development of National Standardized All-Hazard Disaster Core Competencies for Acute Care Physicians, Nurses, and EMS Professionals

Final report, Nov 2009

ESPERIENZE



Development of National Standardized All-Hazard Disaster Core Competencies for Acute Care Physicians, Nurses, and **EMS Professionals**

Partecipanti

- American College of Emergency Physicians
- American Academy of Pediatrics (AAP)
- American College of Surgeons (ACS)
- Emergency Nurses Association (ENA)
- National Association of EMS Physicians (NAEMSP)
- National Association of Emergency Medical Technicians (NAEMT)
- American Public Health Association (APHA)
- Centers for Disease Control and Prevention
- Department of Homeland Security
- Educational Development Consultant

ESPERIENZE



Development of National Standardized All-Hazard Disaster Core Competencies for Acute Care Physicians, Nurses, and **EMS Professionals**

19 Competenze

- Nomenclature
- ICS
- Recognition, notification, initiation, and data collection
- Communication
- Resource management
- Volunteer management
- Response teams
- Public health/safety
- Patient triage
- Surge capacity
- Patient identification and tracking
- Transportation
- Decontamination
- Clinical issues
- Special needs populations
- Evacuation
- Critical thinking
- Ethical principles
- Psychosocial issues

LA MEDICINA DEI DISASTRI:

E' NECESSARIA UNA PREPARAZIONE SPECIFICA?

F. Della Corte, A. Ripoll – Napoli - SIAARTI 2012

***1. Ti è mai capitato di collaborare con Enti pubblici quali Protezione Civile, Croce Rossa Italiana o non governative?**

- Si, in modo estemporaneo
- Si, in modo continuativo
- No, mai

2. Se hai risposto affermativamente alla domanda n° 1, specifica in quali e per quanto tempo:

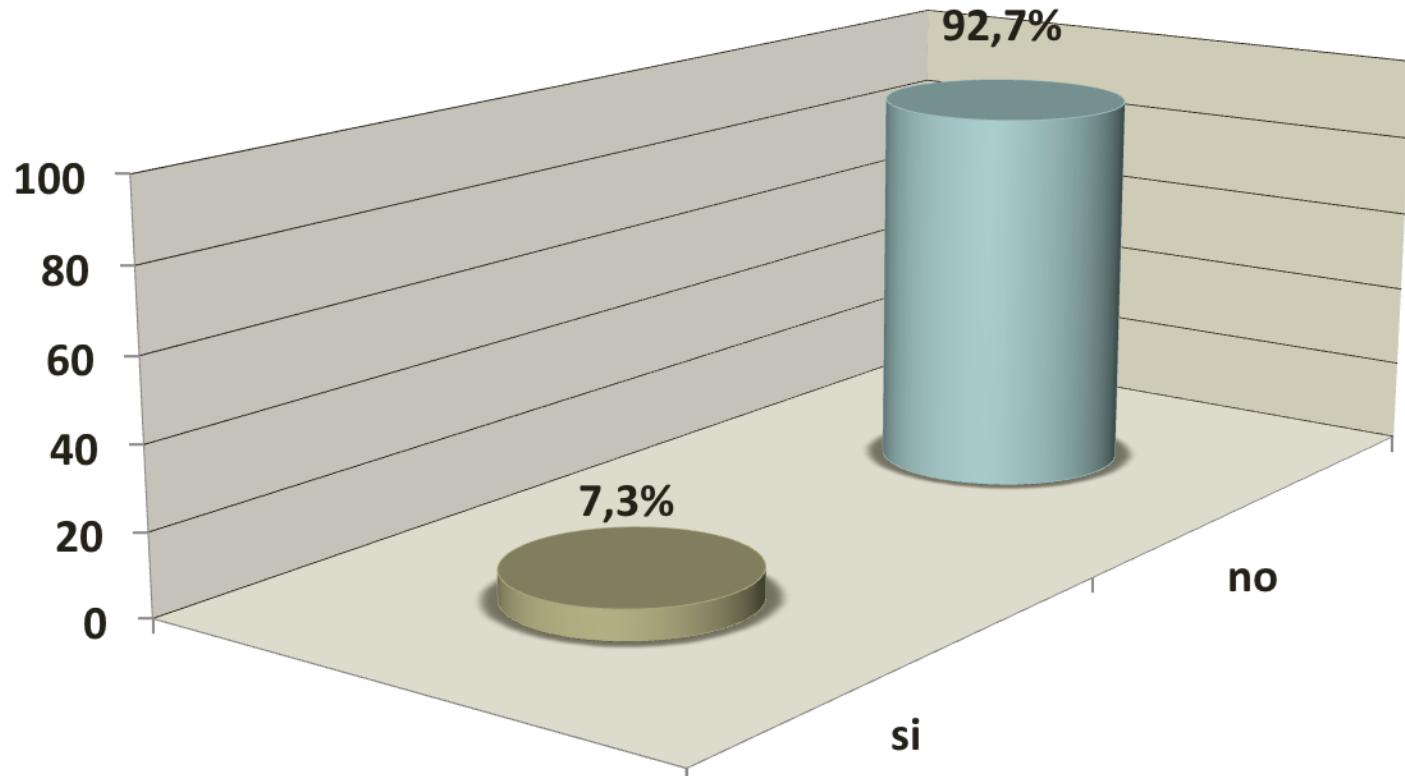
***3. Hai partecipato a qualche missione di carattere umanitario in paesi a basse risorse?**

- Si, in caso di disastro
- Si, in caso di missione umanitaria
- Si, in entrambi i casi
- No, mai

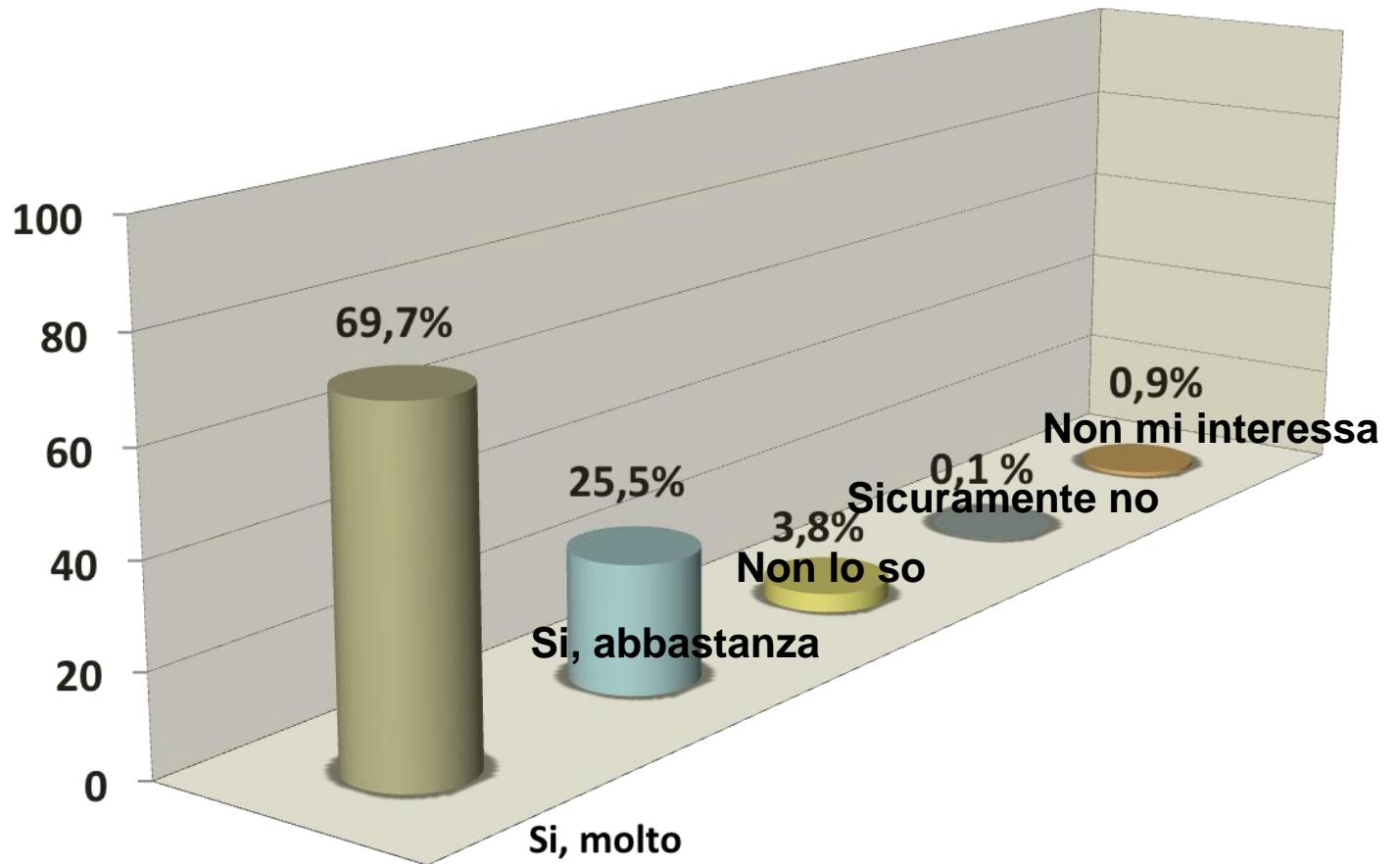
***4. Pensi che sia utile per la tua crescita professionale la partecipazione a missioni di carattere umanitario in paesi a basse risorse o in seguito a disastro calamità?**

- Si , molto utile
- Si, abbastanza

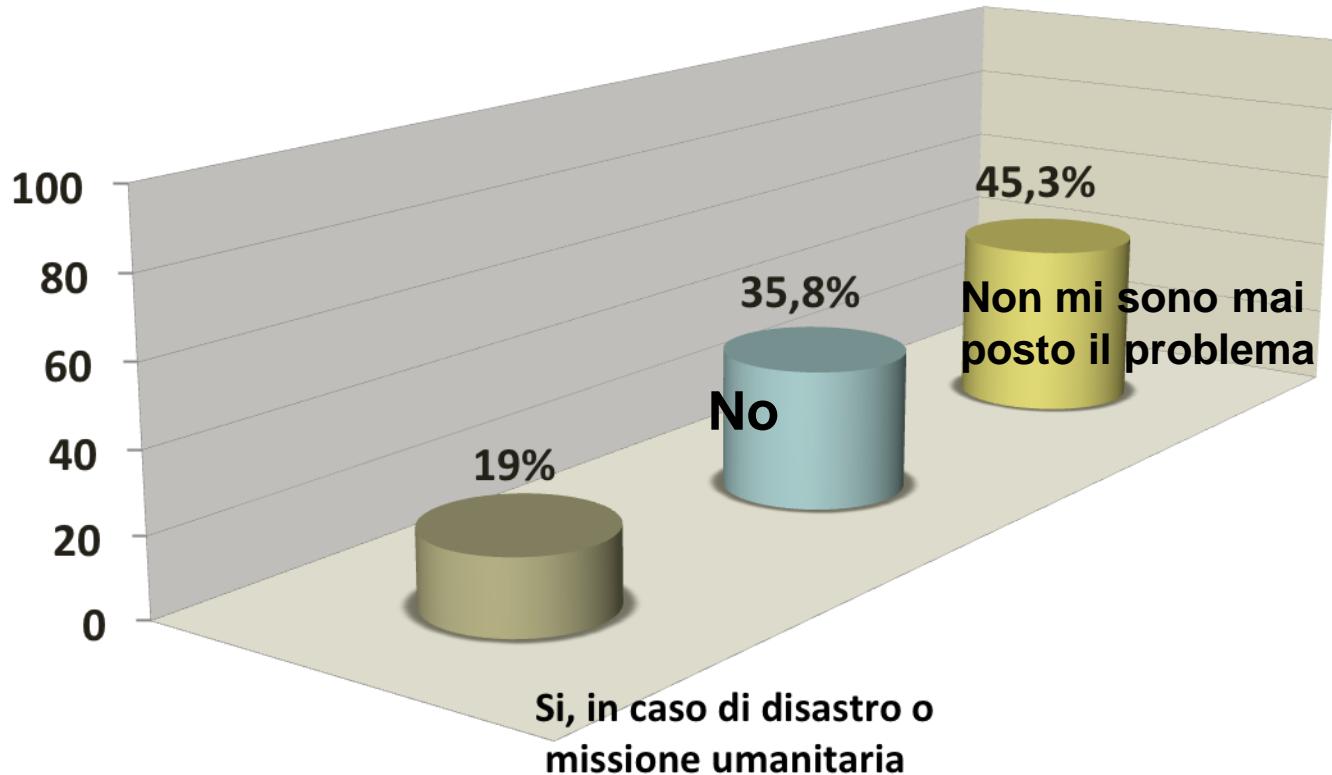
Hai partecipato a qualche missione di carattere umanitario in paesi a basse risorse?



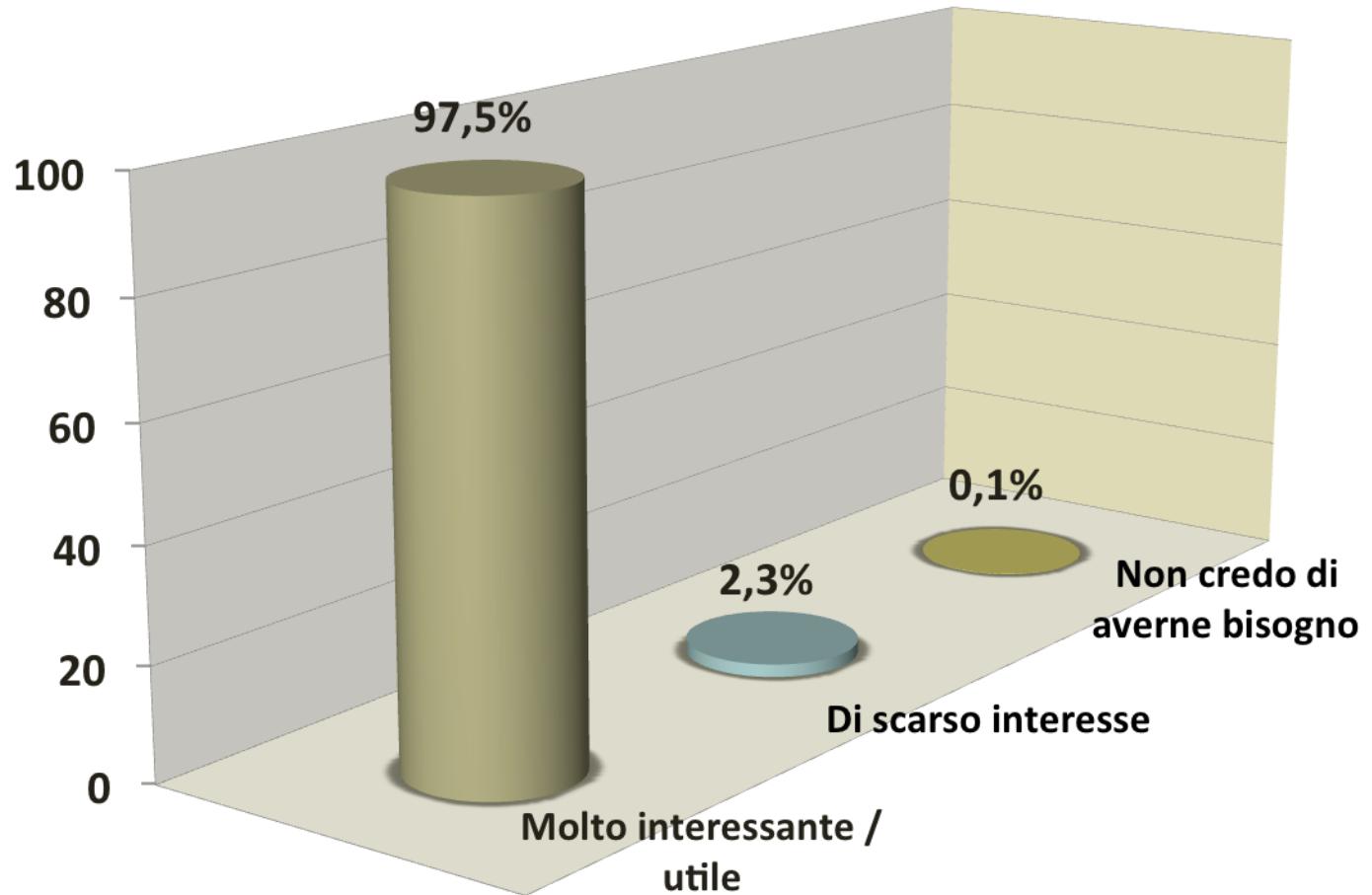
Pensi che sia utile per la tua crescita professionale la partecipazione a missioni di carattere umanitario in paesi a basse risorse o in seguito a disastro o calamità?



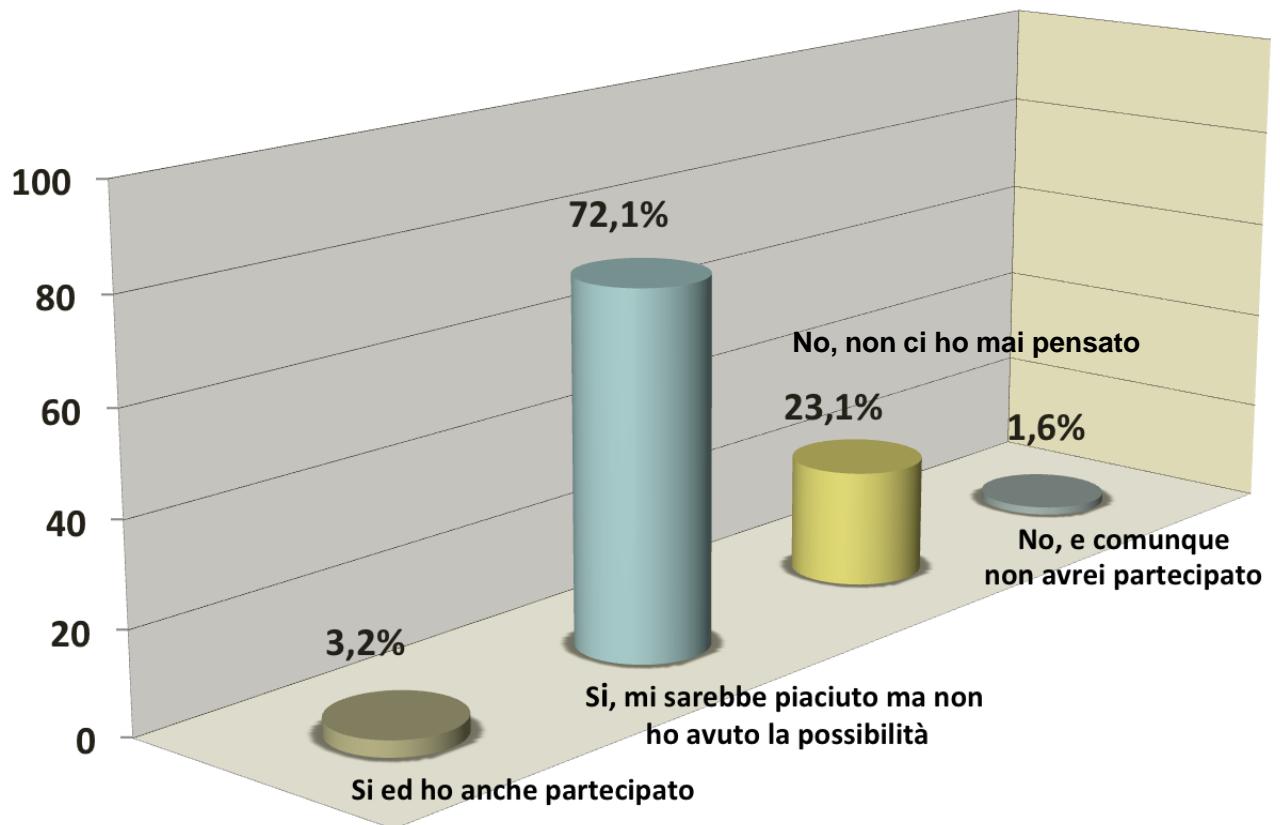
Nella tua scuola di specialità è prevista la possibilità di partecipazione a missioni umanitarie in paesi a basse risorse?



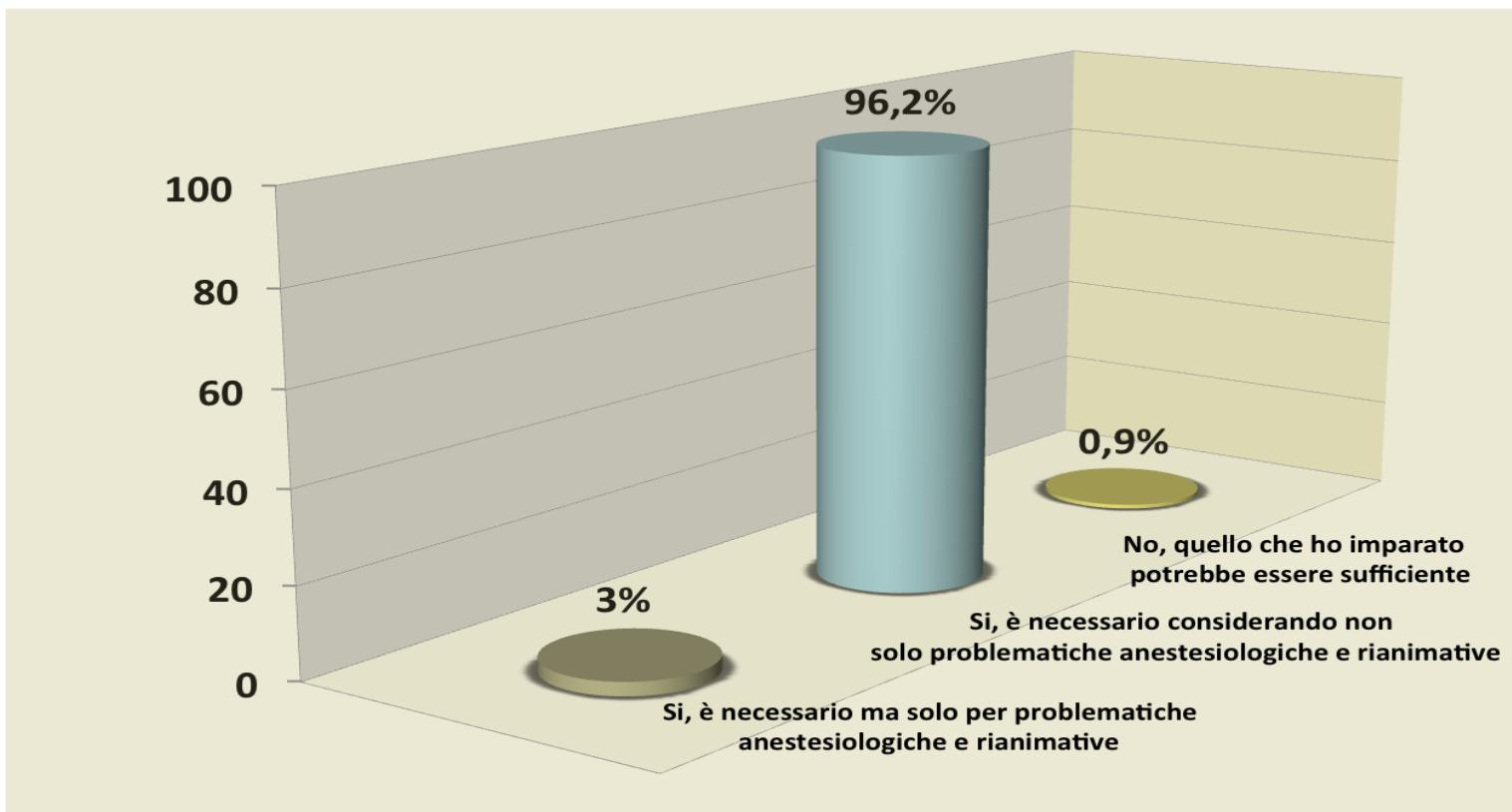
Un percorso formativo appositamente strutturato per missioni estere sarebbe....



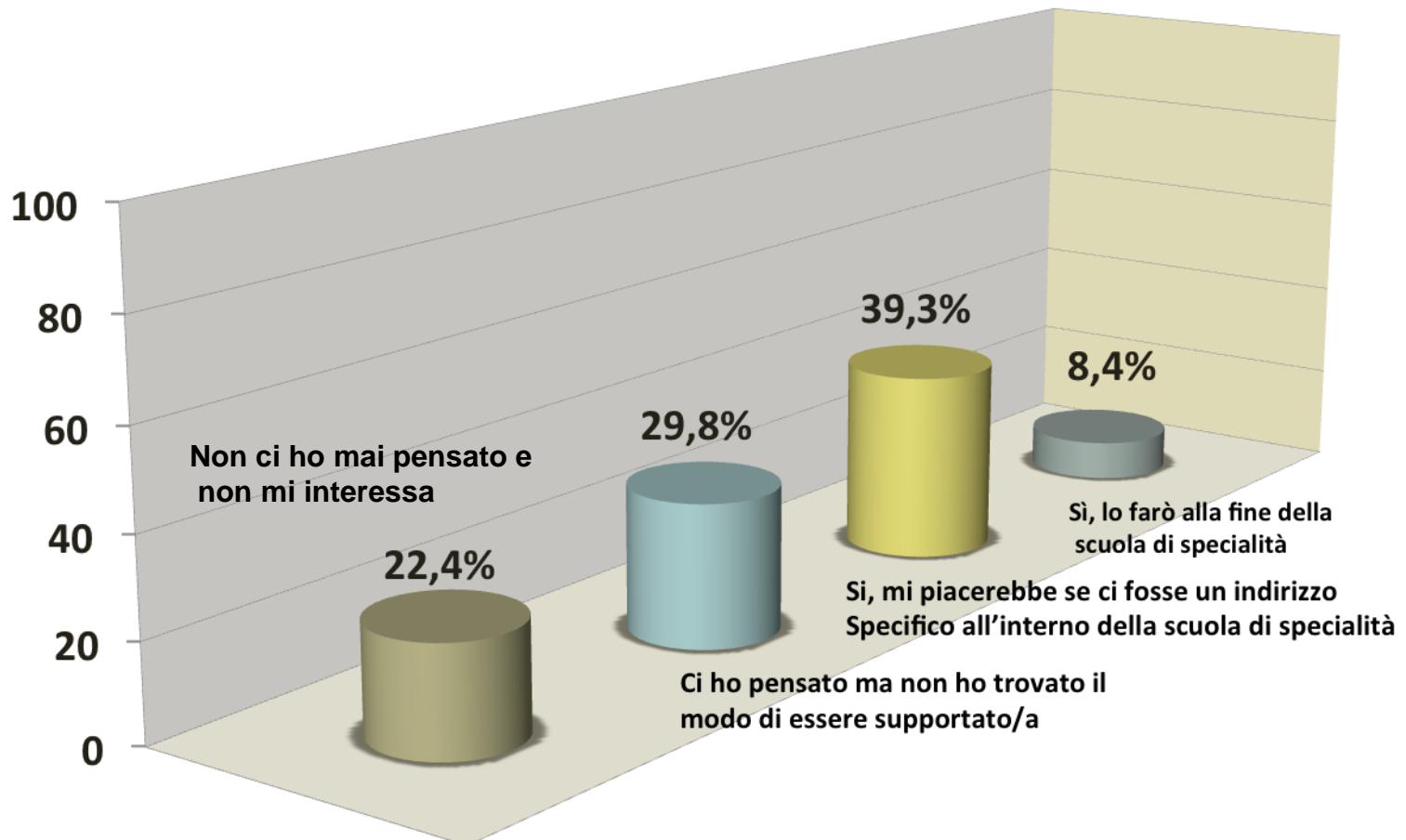
Hai mai avuto un eventuale interesse a partecipare a missioni all'estero in paesi a basse risorse o in seguito a disastro o calamità durante la frequenza della scuola di specialità?



Pensi che sia necessaria una professionalizzazione del personale sanitario coinvolto in una situazione di emergenza umanitaria o in seguito a disastro o calamità?



Hai mai pensato di orientare il tuo futuro professionale verso la medicina dei disastri o umanitaria ?



grazie

www.crimedim.it

dellacorte.f@gmail.com