Global REsearch Acute conditions Team Network

Immigrant Health Issues – An Overview

Postgraduate School of Emergency Medicine
Faculty of Medicine and Psychlogy

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Professor of Medicine, Director and Chairman

SAMsterDAM
1–2 May
Novotel, Amsterdam

Novotel, Amsterdam May 1 2014
To give this talk is harder than crossing the GREAT wall...
Immigration comes for many reasons:

more than 200 million migrants around the world

Europe hosts the largest number of immigrants

Ethnic minority groups, coming from all over the world, constitute increasing proportions of the population in Western countries.
Actual immigration trend in Europe

4.570.317 foreigners in Italy/60.000 italians


ISTAT demographic statistics 2011.

Immigration dossier 2008 Caritas/Migrantes – Draft 30/10/2008
The most recent waves of migration in Europe

- Romania
- Albania
- Morocco
- China
- Ukraine
- Syria
- Perù

- Philippine
- Tunisia
- Ex-jugoslavia
- Senegal
- India
- Sry-Lanka....
Of all the forms of inequality, injustice in health care is the most shocking and inhumane.

— Martin Luther King, Jr.

In Italy there is an increasing need to improve their health care

- different people must share spaces and social and health resources;
- significant difficulties in carrying out efficient controls to guarantee sanitary safety for all.

Emergency Department Overcrowding

Spirivulis P.C. et Al. The association between hospital overcrowding and mortality.

*The Medical Journal of Australia 2006; 184; 184 (5): 208 - 212*
**TEMPI DI ATTESA ATTUALI DEL PRONTO SOCCORSO**

AGGIORNATO ALLE ORE : 11.52 DEL 01/05/2014

- **Rossi entrati**: 4
- **Gialli entrati**: 29
- **Verdi entrati**: 24
- **Bianchi entrati**: 0

**Codice Rosso** - Emergenza
Pazienti con immediato pericolo di vita nei quali è in atto la compromissione di almeno di una delle tre funzioni vitali (Coscienza, Respiro e Circolo) - NON EFFETTUANO ATTESA

**Codice Giallo** - Urgenza
Pazienti in potenziali pericolo di vita, nei quali vi è minaccia di cedimento di una delle tre funzioni vitali - NON EFFETTUANO ATTESA

**Codice Verde** - Urgenza minore
Pazienti che non presentano compromissione significativa delle funzioni vitali, che non appaiono apparentemente sofferenti e per i quali è estremamente improbabile un peggioramento del quadro clinico

**Codice Bianco** - Nessuna Urgenza
Richiesta di prestazione sanitaria che non rivestono alcun carattere di urgenza e per le quali potrebbero essere effettuati altri percorsi intra-extra-sanitari (es. Medico di Famiglia). I pazIENTI comunque vengono assistiti, ma solo dopo che il personale ha risolto i casi più urgenti

Attualmente sono entrati n° 57 pazienti
Sono in attesa n° 0 pazienti

Grado di affollamento del Pronto Soccorso: Sovraffollamento con blocco delle chiamate dei codici verdi e bianchi Ulteriore momentaneo allungamento dei tempi di attesa dei codici differibili per
Is Acute Medicine the Worldwide solution for ED overcrowding?

Beijing April 22 2014
In 2006:

- 42,531 ED visits

In 2007:

- 46,088 ED visits

In 2009:

- 56,148 ED visits
- About 2,100 patients (4%) from all over the world

2014 perspectives:

- 65,000 in 2009 about 6,000 patients (10) from all over the world
Immigrant population referring to our ED

Data from Gipse
Immigrant population referring to our ED

*data from Gipse*
Asian population referring to our ED

- Abdominal pain: 29%
- Fever: 3%
- Other: 6%
- Minor trauma: 24%
- Chest pain: 20%
- Respiratory infections: 12%
- Urinary infections: 6%

*Data from Gipse*
African population referring to our ED

*data from Gipse

- Abdominal pain: 16%
- Chest pain: 25%
- Major trauma: 7%
- Urinary infections: 8%
- Fever: 8%
- Hypertension: 22%
- Respiratory infections: 10%
- Other: 4%
- Respiratory infections: 10%
- Major trauma: 7%
Dear customer,
the new Influenza A (H1N1)v is an acute respiratory infection with similar classic influenza symptoms. 
**Attention**: in order to limit the infection diffusion please, if you stay in Emergency Department room you must wear a surgery mask available at the entrance - triage, and maintain it for your permanence.

Thanks for your collaboration

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**INFLUENZA PANDEMICA (H1N1)v**

INFORMACION PARA LOS USUARIOS DE LA PRIMERA EMERGENCIA

Querido usuario,
la influenza Pandémica A (H1N1)v es una infección respiratoria viral aguda con síntomas similares a la clásica influenza.
**Atención**: al fin de limitar la propagación de la infección, por favor, en el acceso al local de primera emergencia, usar una máscara disponibles a la entrada en el triage y mantener durante la duración de su estancia.

Gracias por su colaboración

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**GRIPE A (H1N1)v**

RENSEIGNEMENTS POUR LES UTILISATEURS QUI ACCEDENT AU POSTE DE SECOURS

Gentil utilisateur,
la nouvelle grippe A(H1N1)v est une infection virale aigüe de l’apparat respiratoire avec des symptômes similaires a ceux classiques de la grippe.
**Attention**: afin de limiter la diffusion de la contagion, nous vous prions, en accédant aux locaux du poste de secours, de mettre un masque disponible à l’entrée auprès du triage e de le garder pour toute la durée de votre permanence.

Merci de la collaboration

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**INFLUENTA A (H1N1)**

INFORMATII UTILE PENTRU TOATE PERSOANELA CARE AJUNGE IN SPITAL - TRIAJ URGENTA

Stimulate utilizator

Noua influenţă (H1N1) V este o infecţie acută virală respiratorie cu simptome similare cu cele clasice de influenţă stagională.
**Atenţie**, în scopul de a limita răspândirea infecţiei, vă rugăm la intrarea în spital-repartul de triaj-urgenţă este obligatoriu sa se poarte o mască disponibile la intrarea de la triaj și să mențină pe durata șederii sale.

Vă mulțumim pentru cooperare

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الأفلونزا V (H1N1)

معلومات مقيدة للمستخدمين عند الوصول إلى عرض الطوارئ

حمرة المستخدم

مرض الأفلونزا الجديد (H1N1) هو الالتهاب الفيروسي حاد للجهاز التنفسي مع أعراض أساسية شبيهة على مرض الأفلونزا العادي.

**انتابه!**

لأجل عدم انتشار المرض، يرجى عند الدخول الا عرض الطوارئ ارتدان القناع المتوفر

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Expected deaths for cardiovascular diseases in 2020

Yusuf: Circulation 2001
Different prevalence of cardiovascular diseases as a function of race/ethnicity
Long-Term Survival in Ethnic Subsets after coronary events

Increasing numbers of immigrants to contact Emergency Department to receive medical assistance

Emergency physicians assume an important role to approach the immigrants and they must face a lot of difficulty related to personal experience and different multicultural realities.

Determining risk factors for events and differentiating between the possible causes may identify patients at higher risk for future cardiac events and ultimately guide preventive therapy.

Heart failure in the ethnic minorities. Moe GW, Tu J. Curr Opin Cardiol. 2010 Mar;25(2):124-30
Our experience:

**STUDY DESIGN**

The study was Italian no profit, observational, prospective, multicentric, directed to create a data collection for the evaluation of Immigrants use of ED in Italy.

**Primary endpoints:**

- assessment of the use of national health system by immigrants in Italy;
- descriptive epidemiological analysis: frequency and type of risk factors and cardiovascular diseases;
- evaluation of direct medical costs.
MATERIALS AND METHODS

We studied patients older than 18 years that arrived in Emergency Department.

A Case Report Form was filled up with personal, demographics data, socio-cultural information, number of years in Italy, clinical history with particular attention to presence of cardiovascular risk factors and cardiovascular diseases, final diagnosis, health services used, prescribed therapy.

DIFFICULTIES:

1. many patients did not answer to our questions;
2. language barrier.
RESULTS

We enrolled 11642 foreign patients arrived to ED:

Mean age: 41.37 ± 15.89

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>52%</td>
<td>48%</td>
</tr>
</tbody>
</table>
PATIENTS NATIONALITY (all patients)

- north africa: 18%
- balkans: 10%
- east europe: 10%
- africa: 6%
- west asia: 8%
- west europe + usa: 13%
- south america: 26%
- other: 13%
- unknown: 2%

PATIENTS NATIONALITY (all patients)
ETHNICITY (all patients)

- White Caucasian: 43%
- Asian: 15%
- Hispanic: 18%
- Black: 6%
- North African: 2%
- Indian: 3%
- Rom/Sinti: 2%
- Philippine: 2%
- Other: 2%
- Unknown: 1%

SAPIENZA
Università di Roma

GREAT
<table>
<thead>
<tr>
<th>Suspected cardiovascular diseases at arrival in ED</th>
<th>Effective cardiovascular diseases (final diagnosis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3114</td>
<td>2105</td>
</tr>
</tbody>
</table>

Mean age: 55.03 ± 15.22 !!

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>59%</td>
<td>46%</td>
</tr>
</tbody>
</table>
PATIENTS NATIONALITY (pz with CV diseases)

- 36% in east europe
- 17% in west europe + usa
- 10% in south america
- 9% in west asia
- 6% in africa
- 7% in north africa
- 7% in balkans
- 8% in south america
- 7% in others

Location:
- north africa
- balkans
- east europe
- africa
- west asia
- south america
- west europe + usa
- others
More represented countries

- Romania: 27
- Albania: 9
- Bangladesh: 3
- Ecuador: 3
- Egypt: 5
- Jugoslavia: 4
- Philippine: 4
- Iran: 3
- Poland: 4
- Tunisia: 4
- Ukraine: 3
ETHNICITY (pz with CV diseases)

- White Caucasian: 59%
- Asiatic: 13%
- Hispanic: 8%
- Black: 9%
- North Africa: 3%
- Indian: 3%
- Rom/Sinti: 1%
- Philippine: 4%
### In Italy from...

<table>
<thead>
<tr>
<th>Duration</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 6 months</td>
<td>8%</td>
</tr>
<tr>
<td>&gt; 6 months &lt; 2 years</td>
<td>7%</td>
</tr>
<tr>
<td>&gt; 2 years &lt; 5 years</td>
<td>18%</td>
</tr>
<tr>
<td>&gt; 5 years</td>
<td>36%</td>
</tr>
<tr>
<td>unknown</td>
<td>36%</td>
</tr>
</tbody>
</table>

### Arrival to ED

<table>
<thead>
<tr>
<th>Arrival Method</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indipendent arrival</td>
<td>72%</td>
</tr>
<tr>
<td>Arrival with ambulance 118</td>
<td>33%</td>
</tr>
</tbody>
</table>

### Health coverage

<table>
<thead>
<tr>
<th>Health Coverage</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>6%</td>
</tr>
<tr>
<td>Yes</td>
<td>63%</td>
</tr>
<tr>
<td>Unknown</td>
<td>36%</td>
</tr>
</tbody>
</table>
Symptoms at arrival to ED

Patient’s severity

<table>
<thead>
<tr>
<th>Red(%)</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow(%)</td>
<td>64</td>
</tr>
<tr>
<td>Green(%)</td>
<td>31</td>
</tr>
<tr>
<td>White(%)</td>
<td>2</td>
</tr>
</tbody>
</table>

- Red: 4%
- Yellow: 13%
- Green: 10%
- White: 10%
- Other: 11%
- Palpitations: 37%
- Dizziness/syncope: 15%
- Headache/neurological disorders: 10%
- Chest pain: 10%
- Abdominal pain: 4%
- Other: 15%
### CV risk factors

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Familiarity</td>
<td>30%</td>
</tr>
<tr>
<td>Smoke</td>
<td>44%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>53%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>16%</td>
</tr>
<tr>
<td>Overweight</td>
<td>11%</td>
</tr>
<tr>
<td>Dyslipidemia</td>
<td>17%</td>
</tr>
<tr>
<td>Nephropathy</td>
<td>4%</td>
</tr>
</tbody>
</table>

### Clinical history

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart failure</td>
<td>20%</td>
</tr>
<tr>
<td>Previous AMI</td>
<td>17%</td>
</tr>
<tr>
<td>Angina</td>
<td>7%</td>
</tr>
<tr>
<td>Atrial fibrillation</td>
<td>11%</td>
</tr>
<tr>
<td>Peripheral vascular disease</td>
<td>5%</td>
</tr>
<tr>
<td>Other</td>
<td>5%</td>
</tr>
</tbody>
</table>

### Home therapy

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>37%</td>
</tr>
<tr>
<td>No</td>
<td>64%</td>
</tr>
</tbody>
</table>
Final diagnosis

- ictus: 6
- hypertensive urgency: 4
- atrial fibrillation: 11
- STEMI: 6
- NSTEMI: 15
- pulmonary edema: 2
- acute heart failure: 11
- chest pain: 11
- syncope/hypotension: 4
- other: 9

26%
Chest pain and ethnicity

Low risk ACS

Medium risk ACS

High risk ACS

**Africans**
- Low LDL and triglycerides
- Less obesity
- Few smokers
- Less coronary calcifications

**Caucasians**
- Obesity
- Este countries
  - Smoke
  - Alcohol

**Japanese**
- Convenzional factors
  - Bechet
- Arabi:
  - Convenzional risk factors

**Asiatici**
- Small vessels
- High coronary syndromes
  - Afroamerican
    - Hypertension
    - Diabetes
  - Ispanici
    - Metabolic syndrome

**End points**
- Consider immunologic status
  - Paesi del Est
    - Life style education
    - Japan
  - Consider coronary angiography in asian people

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*Heart 2003; Xagena 2007*

*OMS 2002; Sakane NEJM 1999*
• a lot of immigrants arrives in ED because they haven’t any other medical assistance, determining the increased use of national health resources and increasing public health expenditure.
CONCLUSIONS II

• 16.3 % refers to ED for acute cardiovascular diseases;

• patients are younger compared to western countries ones;

• the most frequent acute cardiovascular diseases is hypertensive crisis (28.6%), mostly related to poor antihypertensive therapy compliance, because of lack of health assistance adequate access;
CONCLUSIONS III

• There is an urgent need to establish appropriate research studies, increase awareness of the CVD burden, and develop preventive strategies for immigrant health care;
• findings from our study provide support for the development of primary prevention of cardiovascular risk factors with an important role of culturally competent education of individuals and families;
• better outpatient management would allow a decrease in inappropriate use of the emergency department.
5th ITALIAN GREAT NETWORK CONGRESS
Focus on innovations and translational research in Emergency Medicine

14/18 OCTOBER 2014
Rome, Scuola Superiore di Polizia