Screening practices for infectious diseases among newly arrived migrants in Spain

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Summary

• Patterns of immigration
• Immigration health centres
• Main diseases among immigrant people
• Documents and guidance
• Diseases screened
• Results of screening practices
• Lessons learnt and challenges
Spain is divided into 17 autonomous regions

Decentralization of health care system
Patterns of immigration

Trend of the foreign population in Spain

Source: National Statistics Institute (INE)
Patterns of immigration

Foreign population by sex

Source: National Statistics Institute (INE)
Patterns of immigration

Age structure of national and non-national immigrants in 2014

Source: National Statistics Institute (INE)
Patterns of immigration

Immigration by EU country of birth

Source: National Statistics Institute (INE)
Patterns of immigration

Immigration by non EU country of birth

Source: National Statistics Institute (INE)
Immigration centres

No specific centres for immigrants

• Tropical Medicine Centres
• National Centre for Tropical Medicine
• International Health
• Spanish Society of Tropical Medicine
Diseases among immigrants

- Tuberculosis
- Hepatitis B and C
- STI
- HIV / AIDS
- Leprosy
- Malaria
- Schistosomiasis
- Filariasis
- Leishmaniasis
- Chagas disease
- Dengue
Guía de enfermedades infecciosas importadas

Protocolo de atención a los inmigrantes e hijos de inmigrantes. ABS Raval Nord. Barcelona

GRUPO DE CONSENSO DE ATENCIÓN PRIMARIA

RECOMENDACIONES PARA LA ATENCIÓN AL PACIENTE INMIGRANTE EN LA CONSULTA DE ATENCIÓN PRIMARIA

Estudio de Inmigración y Salud Pública: Enfermedades Infecciosas Importadas
Screening of asymptomatic health people

1. Personal background
2. Current medical history
3. Physical exploration
4. Psychological basic exploration
5. Additional tests
Screening of asymptomatic health people

1. Personal background

- Birth country and travelled countries
- Length of stay in Spain
- Housing characteristics and cohabitants
- Relevant medical history: tuberculosis, STIs, HBV, HIV,…
- Stressors that impede adaptation
- Allergies
- Activity and employment status
- Educational level

In women:
- Gynaecological, obstetric and possible STIs medical history
- Contraceptive method used
- Abortions
- Controls of previous pregnancies
- Gender violence

In children:
- Mother’s pregnancy monitored or not
- Vaccination status
Screening of asymptomatic health people

5. Additional tests

- CBC
- Blood biochemistry
- Urinalysis
- Parasite in faeces
- Tuberculin skin test and chest X-ray
- Serology
  - Hepatitis B
  - Hepatitis C
  - Syphilis
  - HIV/AIDS
  - Toxoplasmosis
  - Rubella
- Blood smear for malaria
Clinical Impact of HTLV-1 Infection in Spain: Implications for Public Health and Mandatory Screening.

Toro, Carlos; Rodés, Berta; Aguilera, Antonio; Caballero, Estrella; Benito, Rafael; Tuset, Concepción; García, Juan; de Lejarazu, Raúl Ortiz; Eíró, José M.; Calderón, Enrique; Rodríguez, Carmen; Soriano, Vincent; on behalf of the HTLV Spanish Study Group

Seroprevalence of chronic viral hepatits markers in 791 recent immigrants in Catalonia, Spain. Screening and vaccination against hepatitis B recommendations

Introduction. The prevalence of chronic viral hepatits in the European Union (EU) will vary because of the immigrants coming from countries having an elevated with a higher endemicity of hepatitis B (HBV) and C virus (HCV). Serologic screening for viral hepatitis markers is a subject that has been discussed in the areas of feasibility, ethics and cost-effectiveness. The main study aims were: a) to know the prevalence of chronic viral hepatits markers and, b) to determine the best cost-effectiveness strategy of vaccination against hepatitis B. Population and Method. An observational, perspective and multicenter study was performed on the Primary Care level in Catalonia (Spain) among healthy immigrants who had lived in the EU for less than 5 years.

Results. Data from 791 individuals were analyzed. They presented anti-HBc 33% (95% CI 29.6 -36.1), and anti-HBs 16.1% (95% CI 11.4 -20.8). HBSAg was 5.9% (95% CI 3.8 -7.7), of those were HBsAg 15.62% (95% CI 5.3-32.8). The sub-Saharan group presented the highest prevalence of anti-HBc (77.3%) and HBSAg (18.2%), whereas the Latin American-origin population displayed the lowest one (12.5% and 1.2%, respectively). Determination of antibodies prior to vaccination was found as cost-effective from a seroprevalence of anti-HBc > 48.72%; only overcome by the CI of the sub-Saharan population (95% CI 5.3-32.8). The prevalence of anti-HCV was 6.1% (95% CI 4.3-7.8), especially high among the Eastern European (19.6%) and Indostatic

HIV-Positive Immigrants in the Canary Islands. Spain: Implications for Public Health in Europe

Africa Holguín1, Amparo Álvarez2, María José Peña1, Fernando Artilles3, Lourdes Molina3, Vincent Soriano1

Author Affiliations

Molecular and Epidemiological Characteristics of Blood-Borne Virus Infections Among Recent Immigrants in Spain

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The increased immigration from developing regions to Western countries raises public health concerns related to blood-borne viruses. The prevalence of human immunodeficiency virus (HIV), hepatitis B virus (HBV), hepatitis C virus (HCV), and human T-lymphotropic virus (HTLV) infections among recent immigrants attending several Spanish-disadvantaged regions. The increased immigration from developing countries raises two public health concerns: the importation of unusual diseases or pathogens which can be transferred to natives, and acquisition of local diseases by the newly arriving immigrant population. Blood-borne virus infections are highly prevalent in most developing countries, where a broad spectrum of

Infectious diseases in sub-Saharan African immigrant children in Madrid, Spain

MÁRICA RUANO-MEDINA, CÉSAR GÓMEZ-HERNANDO

Abstract

The increased immigration from developing countries to European countries is growing considerably, but data about imported infectious diseases in immigrant children are few. Methods. Descriptive and retrospective study of 145 sub-Saharan African children ≤14 years of age attending a hospital outpatient clinic in Madrid, Spain, between 2010 and 2011. Results. Of the 145 children 77% had 1 or more symptoms. The remaining 52/100 were asymptomatic and were screened for infectious diseases. Of these 52/100 children did not receive any treatment. Significant associations (P < 0.05) were found between symptoms and the following infectious agents in the sub-Saharan group: enterovirus, other viruses, and intestinal parasites. Twenty percent had a positive fecal culture and 36% were found to be positive for C. difficile. Forty-four percent of the patients had a diagnosis of enterovirus, 10% of children had a diagnosis of cytomegalovirus, 7% were reported to have asymptomatic, 4% were suspected of Chlamydia trachomatis and 14% were suspected of Mycoplasma pneumoniae. Six percent were found to have intestinal parasites. Infection with leishmania was diagnosed in 24 (17%) children. Two children (1%) were found to have hepatitis B (antibodies-positive antigen-negative), 6 children (4%) had hepatitis B surface antigen-negative, and 10 children (7%) were hepatitis C virus-positive. The prevalence of latent tuberculosis infection was 13% (95% CI 3-4) at 54 paired tuberculin test skins performed.

Serological screening of Chagas disease in an immigrant population in Asturias, Spain proceeding from Chagas-endemic areas

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Screening of imported infectious diseases among asymptomatic sub-Saharan African and Latin American immigrants: a public health challenge.

Monge-Maillo B1, López-Vélez R2, Norman FF2, Ferrere-González F2, Martínez-Pérez Á2, Pérez-Molina JA2

Abstract
Migrants from developing countries are usually young and healthy but several studies report they may harbor asymptomatic infections for prolonged periods. Prevalence of infections were determined for asymptomatic immigrants from Latin America and sub-Saharan Africa who attended to a European Tropical Medicine Referral Center from 2000 to 2009. A systematic screening protocol for selected infections was used. Data from 317 sub-Saharan Africans and 383 Latin Americans were analyzed. Patients were mostly young (mean age 29 years); there were significantly more males among sub-Saharan Africans (83% versus 31.6%) and pre-consultation period was longer for Latin Americans (5 versus 42 months). Diagnoses of human immunodeficiency virus (HIV), chronic hepatitis B and C virus infection, and latent tuberculosis were significantly more frequent in sub-Saharan Africans (2.3% versus 0.3%; 14% versus 1.6%; 1.3 versus 0%; 71% versus 32.1%). There were no significant differences in prevalence for syphilis and intestinal parasites. Malaria and schistosomiasis prevalence in sub-Saharan Africans was 4.6% and 5.9%, respectively, and prevalence of Chagas disease in Latin Americans was 48.5%. Identifying and treating asymptomatic imported infectious diseases may have an impact both for the individual concerned and for public health. Based on these results, a systematic screening protocol for asymptomatic immigrants is proposed.
MEMORIA DE LA UNIDAD DE MEDICINA TROPICAL
AÑO 2014
Number of new patients attending the Tropical Medicine Unit (2004-2014)

Source: Annual report, Tropical Medicine Unit. Poniente (Almería), 2014
Main diagnoses in immigrant patients by area of origin (2004 -2014)

Source: Annual report, Tropical Medicine Unit. Poniente (Almería), 2014
<table>
<thead>
<tr>
<th>Country</th>
<th>Frecuencia</th>
<th>Porcentaje</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marruecos</td>
<td>40</td>
<td>12,2</td>
</tr>
<tr>
<td>Mali</td>
<td>71</td>
<td>21,7</td>
</tr>
<tr>
<td>Ghana</td>
<td>13</td>
<td>4,0</td>
</tr>
<tr>
<td>Guinea Bissau</td>
<td>30</td>
<td>9,2</td>
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<tr>
<td>Mauritania</td>
<td>12</td>
<td>3,7</td>
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<tr>
<td>Senegal</td>
<td>59</td>
<td>18,0</td>
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<tr>
<td>Guinea Ecuatorial</td>
<td>6</td>
<td>1,8</td>
</tr>
<tr>
<td>Nigeria</td>
<td>9</td>
<td>2,8</td>
</tr>
<tr>
<td>Ecuador</td>
<td>3</td>
<td>0,9</td>
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<tr>
<td>Burkina Fasso</td>
<td>5</td>
<td>1,5</td>
</tr>
<tr>
<td>Bolivia</td>
<td>14</td>
<td>4,3</td>
</tr>
<tr>
<td>Gambia</td>
<td>10</td>
<td>3,1</td>
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<tr>
<td>España</td>
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<td>11,3</td>
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<tr>
<td>Guinea-Conakry</td>
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<td>0,9</td>
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<tr>
<td>Rumania</td>
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<td>0,9</td>
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<tr>
<td>Rusia</td>
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<td>0,6</td>
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<tr>
<td>Colombia</td>
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<td>0,3</td>
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<tr>
<td>Costa de Marfil</td>
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<tr>
<td>Argelia</td>
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<td>0,3</td>
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<tr>
<td>Brasil</td>
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<td>Inglaterra</td>
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<td>0,3</td>
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<tr>
<td>Camerún</td>
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<td>0,6</td>
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<td>República Dominicana</td>
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<td>0,3</td>
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<td>Pakistán</td>
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<td>0,3</td>
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<tr>
<td>República Democrática del Congo</td>
<td>1</td>
<td>0,3</td>
</tr>
</tbody>
</table>

Total                   | 327        | 100,0      

Countries of origin of the patients seen during 2014

Source: Annual report, Tropical Medicine Unit. Poniente (Almería), 2014
Most relevant parasitological infections diagnosed in 2014

Source: Annual report, Tropical Medicine Unit. Poniente (Almería), 2014
Other infectious diseases diagnosed and/or treated in 2014

<table>
<thead>
<tr>
<th>Disease</th>
<th>Frecuencia</th>
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<tbody>
<tr>
<td>Hepatitis B</td>
<td>72</td>
</tr>
<tr>
<td>Hepatitis C</td>
<td>8</td>
</tr>
<tr>
<td>VIH</td>
<td>3</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>8</td>
</tr>
<tr>
<td>Chikungunya</td>
<td>1</td>
</tr>
<tr>
<td>Sífilis</td>
<td>20</td>
</tr>
</tbody>
</table>

Mantoux test results, 2014

<table>
<thead>
<tr>
<th>Size</th>
<th>Frecuencia</th>
<th>Porcentaje válido</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5 mm</td>
<td>34</td>
<td>36,5</td>
</tr>
<tr>
<td>5-10 mm</td>
<td>14</td>
<td>15,0</td>
</tr>
<tr>
<td>11-15</td>
<td>16</td>
<td>17,2</td>
</tr>
<tr>
<td>&gt;15 mm</td>
<td>29</td>
<td>31,2</td>
</tr>
<tr>
<td>No realizado</td>
<td>234</td>
<td>100,0</td>
</tr>
</tbody>
</table>

Source: Annual report, Tropical Medicine Unit. Poniente (Almería), 2014
Lessons learnt and challenges

Same health system (no parallel system for immigrants)
Multidisciplinary teams

Training programs for HCW
Community participation
Systematic screening protocol for asymptomatic immigrants
Thank you very much
Muchas gracias