

Screening for Rheumatic Heart Disease in Refugee Children in Europe – MSF leads, will others please follow?

Gianfranco De Maio¹, Miguel Lupiz¹, Fortunata Condemiz², Antonio Pagano³, Ahmad Al-Rousan¹, Gabriele Rossi¹

¹Médecins Sans Frontières – Operational Centre Brussels, ²Tor Vergata University Hospital, Rome, Italy, ³National Institute for Health, Migration and Poverty, Rome, Italy

ABSTRACT n. 2416

Background – rheumatic heart disease

- **Chronic condition** with **severe sequelae**, including congestive heart failure, stroke and arrhythmia
- Often occurs during **young adult life**
- Affects 15.6 to 19.6 million people worldwide, with estimates of 282,000 new cases each year
- Quasi eradicated in high-income countries, but **persists in low- and middle-income countries**

⇒ Can be expected among migrant and asylum seeker populations arriving in high-income countries

⇒ **Such individuals often lack access to full diagnostic and preventative health services, even in high-income host countries, and may thus continue to live with RHD as condition**

Intervention

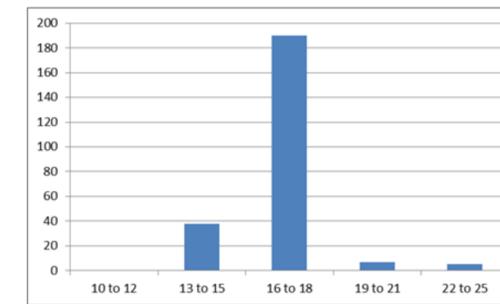
MSF trial of a routine mobile screening approach for RHD:

- Provision of echocardiography in **centers and family houses for unaccompanied foreign minors** in Rome
- Positive and borderline cases, defined according to WHF (World Heart Federation) Guidelines, are re-tested at NIHMP OPD clinic
- Ethical review board not required

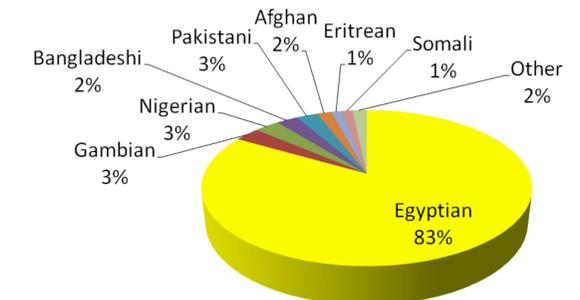


Results

- Between February and August 2016, 240 individuals were screened:



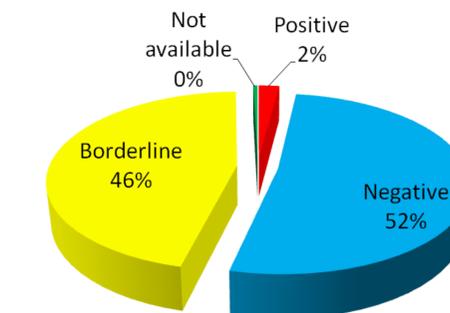
Age distribution among screened population



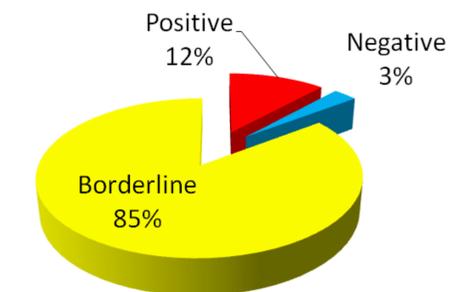
Country of origin distribution among screened population

- **Five positive RHD cases were found, suggesting a prevalence of 2.1% (95%CI 0.7-5.2), and 110 (46%) were borderline**

- Among 35 individuals retested, 2 positive RHD cases were confirmed, 2 screened as borderlines were defined as positives, 30 borderlines were confirmed and 1 screened as borderline was defined as negative.



Prevalence in screened population



Prevalence in re-tested population

- Routine screening also identified one pathological RHD-negative case with severe aortic dilatation, which was immediately referred for life-saving surgery.

Discussion

- Mobile screening for RHD could be conducted for minors in the migrant/asylum seeker population in Rome, at acceptable cost
- 2.1% prevalence of subclinical RHD => **prevalence of manifest RHD requiring urgent care may be as high as 2.5/1000**
- Burden of subclinical RHD within this population in Europe was similar to settings such as India (2.0%), Cambodia (2.2%), and Mozambique (3.0%), while the burden of borderline cases was markedly higher than reported elsewhere
- **Models for the management of borderline cases among mobile populations are needed**
- Considering the high burden of RHD, the severity of sequelae if left untreated, and the relative ease of providing preventive treatment, other actors including the ministries of health in host countries are urged to adopt screening of such populations in their care