sepsis and septic shock (median 7.120 ng/mL) than nonbacterial sepsis (median 0.094 ng/mL) (respectively, P = 0.0405 and 0.0201). Of other inflammatory markers, CRP, WBC and neutrophil count showed significant difference between nonbacterial sepsis and bacterial sepsis and CRP also did between nonbacterial sepsis and severe sepsis or septic shock (respectively, <0.05). The areas under the curve of procalcitonin for differentiating bacterial infection and severe sepsis or septic shock were 0.70 and 0.93 (sensitivity 64.2%, specificity 67.9%, optimum cutoff 0.159 ng/mL and sensitivity 81.3%, specificity 86.3%, optimum cutoff 0.921 ng/mL, respectively). It revealed the best performance for differentiating severe sepsis or septic shock and was only comparable to neutrophil count for diagnosing bacterial infection. The procalcitonin was best inflammatory marker for antibiotic therapeutic monitoring and should be monitored after 3 days from admitted day in this study.
Conclusion: Procalcitonin was the most useful marker for severity asscessment of bacterial infection and antibiotic therapy may be applied to patients when their prcocalcitonin concentration is higher than 0.159 ng/mL.In addition, serial procalcitonin measurement offered the information about bacterial infection control.

Internet and electronic resources

P1889 EpiSouth: a new voice in communicable disease epidemiology in the Mediterranean and Balkans

F. Riccardo, V. Alfonsi, M. Fabiani, M.G. Dente, S. Declich for the EpiSouth Network*

Objective: A country's response to a major outbreak and its capacity to limit the spread of disease across international borders are dependant on the international exchange of information and expertise. Although countries bordering the Mediterranean Sea share concerns in the field of communicable disease epidemiology (CDE), they spread across different continents, 3 WHO regions, and are only partially covered by European networks for infectious disease surveillance and control. Local political tensions and conflicts further limit cooperation in the field of public health (PH). The EpiSouth project aims to create a solid information sharing network among these countries.
Methods: The EpiSouth project started among 5 EU countries: Italy, Spain, France, Greece and Bulgaria. Today it includes 26 countries embracing Southern Europe, the Balkans, North Africa and the Middle-East, and a roster of international organizations (EU, ECDC, and WHO) (Figure 1). In the past three years, through its dedicated web-based platform, this peer-to-peer network of epidemiologists studied several aspects of CDE, including vaccine-preventable disease and emerging zoonosis, developed a cross-border epidemic intelligence platform, directories of PH institutions and veterinary/human PH officers, and established a CDE training programme. All the project outputs are freely available on the web (www.episouth.org). EpiSouth produces two regular bulletins and thematic notes on regionally relevant CD issues including Influenza A H1N1.

Results: As of the 3rd of November 2009, recipients from 59 different countries (Europe 64%, Balkans 20%, North Africa 4%, Middle East 7% and Other 5%) had subscribed to the EpiSouth Bulletin, with a 41% increase in number since the first issue, released in September 2007. 13% of recipients come from countries not included in the EpiSouth region, denoting a growing interest in the network also from other countries. Access to the public website increased dramatically during the past three years, with 15,664 different users counted in September 2009.
Conclusions: With its extended geographical reach, highly committed participants and it's accessibility, Episouth has become a leading voice on the epidemiology of CD in the Balkans and Mediterranean Basin. It created cohesion and concrete collaboration among 26 countries with common PH problems and is now an internet resource providing information to hundreds of users inside and outside the EpiSouth region.

P1890 Experiences with a new computer-based system for automated monitoring and surveillance of healthcare-acquired infections in intensive care

W. Koller, A. Blacky, H. Mandl, K.P. Adlassnig (Vienna, AT)*

Objectives: To compare infection alerts and healthcare-acquired infection (HCAI) surveillance results generated by the computer-based system MONI/Surveillance-ICU with the ones generated in parallel by trained infection control staff. MONI/Surveillance-ICU is a new release of an already established knowledge-based expert system used for monitoring of HCAIs in the intensive care units at the Vienna General Hospital.
Method: Direct comparison of surveillance results generated automatically by MONI with the ones generated in parallel by trained surveillance staff and attending clinical specialists who reviewed patient charts and used other on-site information.
Results: In 50 admissions covering 382 patient days, both systems gave identical results in 40 cases (33 without and 7 with infection). In 6 cases MONI detected HCAIs (2 LRT and 4 CVK-related) which had been missed by the attending clinical specialists. In 4 admissions MONI missed HCAIs (3 LRT and 1 CVK-related) which had been reported by human experts. Though MONI in all those cases reported general indicators for infection, specific information on the actual infection site (e.g., radiology and/or microbiology lab reports indicative for LRT-infection) had not been imported into the surveillance database of MONI and was therefore not available for the automated inference process, which on its own was impeccable. MONI made gradual emergence and fading of HCAIs visible during a patient stay.
Conclusion: MONI/Surveillance-ICU proved to be reliable, quick and even better than human observers in sensing and surveilling HCAI in intensive care, provided all relevant information held in the ICU patient data management system and microbiology lab IT was correctly matched and imported into the MONI database. In our present setting, MONI serves excellently its intended purpose of "infection radar" in intensive care. For a fully-automated surveillance reporting system not all relevant criteria are accessible yet and improvements are planned especially in the IT interfaces to radiology and microbiology.

P1891 The potential of Twitter for early warning and outbreak detection

P. Kostkova, E. de Quincey, G. Jawaheer (London, UK)*

Aims and Objectives: The use of user-generated content in Web 2.0 tools for predicting outbreaks has been seen as a great potential, however, the recent swine flu outbreak in April-May 2009 truly demonstrated the potential of these media for early warning systems. Web 2.0 has generated a great interest recently as a possible media for early warning system for outbreak detection and epidemic intelligence (EI). Traditional systems such as GPHIN, Medisys are well established and used by ECDC and WHO on a daily bases, however, there has been recent interest in the ability to estimate flu activity via aggregating online search queries for keywords relating to flu and its symptoms by commercial companies like Google. However, the search data remain proprietary and therefore not useful for research. The increase in user generated content on the web via social networking services such as Facebook and Twitter, however, provides researchers with a highly accessible view into people's online and offline activity.