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Medical Director's Update for Base Station Physicians' Committee September, 2009

Flu season: As of our September BSPC meeting 21 San Diego residents have died from the Pandemic H1N1 2009 virus. The virus is still active in the community. While testing is now limited to hospitalized and fatal cases, our case count is 1,179 with 262 hospitalized cases. The average age of cases is 25 years, with a range from 4 months to 89 years. The average age of hospitalized cases is 34 years, and fatal cases 46 years of age. We are now heading toward our usual influenza season. In the southern hemisphere where the flu season is just ending, reports indicate the pandemic virus has not mutated into a more virulent form and is genetically similar to the virus here.

California has changed the case definition of a suspected pandemic influenza case to "any patient less than 60 years of age with a fever ($>37.8^{\circ}\text{C}$ or 100°F) and new onset of cough," or a patient a healthcare provider believes, based on the patient's history and illness, to have a high likelihood of being infected with pandemic flu. This change limits the age and eliminates the sore throat. This definition will be used to decide in which patients personal protective equipment must be used. It reflects the small number of cases in those who are older.

We have gotten some good news on a pandemic virus vaccine. Last week two early publications posted on the New England Journal of Medicine website showed good immune response to a single dose of pandemic influenza vaccine. The US National Institutes of Health research is said to mirror this finding. This means it is more likely that the pandemic flu vaccine will require only one injection rather than two, simplifying the vaccine campaign.

Healthcare workers are high priority for influenza vaccine, both to prevent them from becoming ill, and to prevent transmission to patients. Seasonal influenza vaccine is beginning to come in now, and hospital and field personnel should be vaccinated. Priorities have been set for initial administration of pandemic flu vaccine when it becomes available. Healthcare workers are again high priority. Providers should work with their usual vaccine provider to obtain the pandemic flu vaccine. We are obtaining permission from the state for paramedics to administer influenza vaccine this season. This may be helpful for some providers.

Measures to prevent the spread of flu are important. Stay away from those who are ill to the extent possible. Frequent hand washing is important, with use of alcohol based cleansers in the field if there is no evidence of gross contamination on the hands. Cover coughs and sneezes in the crook of your arm or with a tissue that is discarded. Try to avoid touching your face, mouth, etc to avoid transmitting the virus. You should stay home if ill. It is recommended that healthcare workers ill with influenza like illness stay off work for 7 days from symptom onset or until the resolution of symptoms, whichever is longer. Providers need to have staffing plans to continue service with some employees ill.

Controversy remains on the level of PPE needed to examine and treat patients with influenza like illness. There are conflicting recommendations from multiple sources, but for the time being, we will adopt the Cal/OSHA standard. Cal/OSHA has established a standard of aerosol level PPE for suspected pandemic flu patients (which means all patients with influenza like illness at this time). This means aerosol level protection with N-95 mask, eye shield protection, and gown in addition to gloves for healthcare workers providing patient care who are in “close contact” with the patient. Close contact has meant six feet in the past, but is not currently defined by the Institute of Medicine. This is the protection level we have been using for aerosol generating procedures. Those in the driver’s compartment should close partitions to the patient care area, and ensure good ventilation. PPE recommendations, similar to other recommendations, are in a state of flux and may be changed. In this case, the Director of the Centers for Disease Control and Prevention (CDC) may recommend a different, less strict, standard for this flu season. It is unclear if Cal/OSHA would adopt that standard for this year, but we will keep you posted.

Recommendations for post exposure prophylaxis have changed as well. For healthcare workers with an unprotected exposure to pandemic flu virus, it is recommended that only those at high risk of complications if they get the flu are treated with prophylactic medication. An exposed worker would monitor themselves for symptoms of illness and fever for seven days after exposure. Prophylaxis with oseltamivir (Tamiflu) would be recommended only for high risk features such as pregnancy or conditions resulting in immunosuppression such as asthma/COPD, heart disease (except hypertension), diabetes, transplant recipients, kidney, liver, blood, neuromuscular or other diseases.

Public Health is holding Sector meetings with various groups in the county to review the current situation with pandemic flu and how plans will affect them.

Capacity Plan: The Capacity Task Force reviewed the Capacity Plan at the end of August. Some attention was focused on the First Watch monitoring system that tells how many transports are headed to each ED, and gives the time from arrival at the ED until ready for service. This may be a valuable insight into off load times, and provide information that may help correct prolonged off load delays when they occur. The committee added some surveillance activities to the plan, as well more actions at Level IV—the high level activation for extremely high volumes that might be seen in a severe flu season.

Surge Tents, equipment: State Licensing and Certification now allows hospitals to use surge tents and equipment as part of program flexibility without a local declaration of emergency. L&C requires the hospital to notify them with the reason, provision for staffing, and the expected length of time the tent will be used. They also must be notified when the tent is no longer in use. Contact the local L&C office for more details.

Stroke system and new time limit: A total of 15 hospitals qualified to receive acute stroke patients as of July 1. Naval Medical Center San Diego will likely be added to the system in the future.

Triage criteria in the treatment guidelines are assessment with the prehospital stroke scale for symptom onset in the previous 3 hours. The most recent recommendations for use of intravenous tPA say use within 4 1/2 hours of symptom onset is safe. As a result, the Base Hospital may stretch the 3 hour limit to 3 1/2 or 4 hours. The goal still is to administer the medication as quickly as possible if indicated.

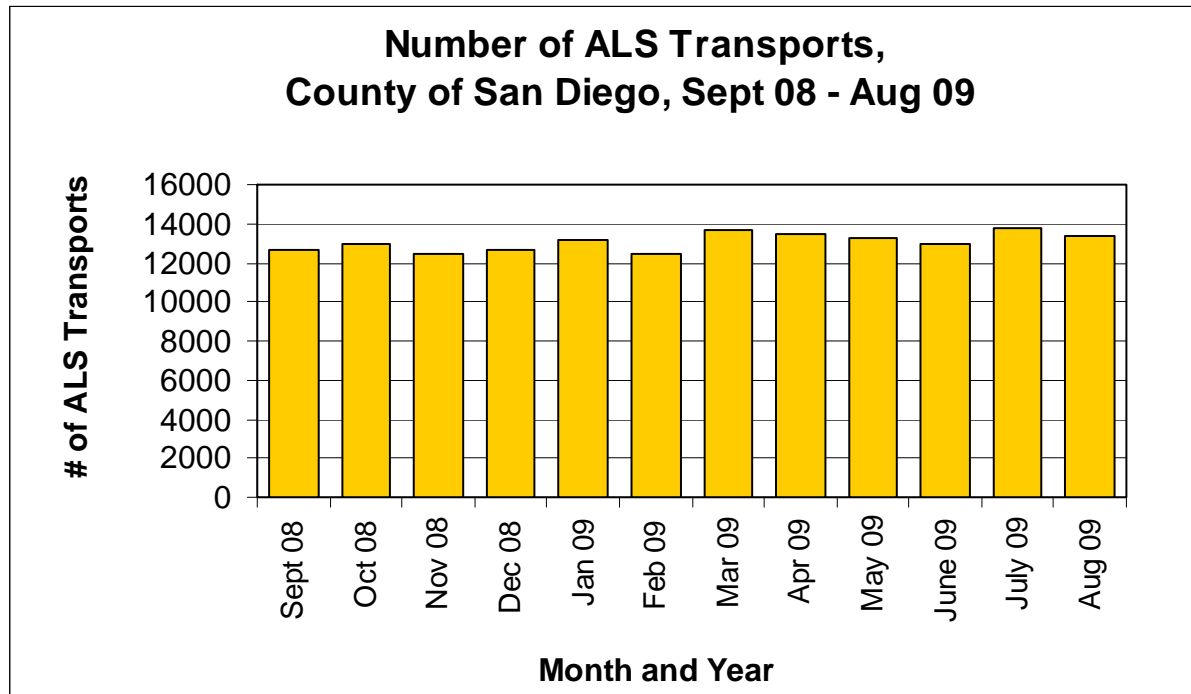
POLST: The new POLST form was added to the state Do-Not-Resuscitate guidelines at the last meeting of the state EMS Commission. A copy of the revised document is available on the EMSA website, www.emsa.ca.gov. The POLST document provides information on a patient's resuscitation choices, along with instructions about the intensity of care preferred separated into comfort care, limited interventions, and full treatment. For the hospital or nursing home there are instructions regarding artificial nutrition as well. Both field and hospital personnel should become familiar with the instrument. Prehospital providers are expected to honor the requests in the document, unless there is some change in the patient's status. The POLST legislation includes liability and licensure protection for honoring the instructions. More information is available on the Medical Director's website for San Diego EMS.

EMT Optional Skills: These are now approved. One training program has been approved. The skills include glucose testing and seven basic medications.

State Issues: Changes in EMT and paramedic licensure, monitoring and discipline mean there will be changes to many of the state regulations over the next year and a half. This "2010" project by the state EMS Authority will be on-going for the next two years.

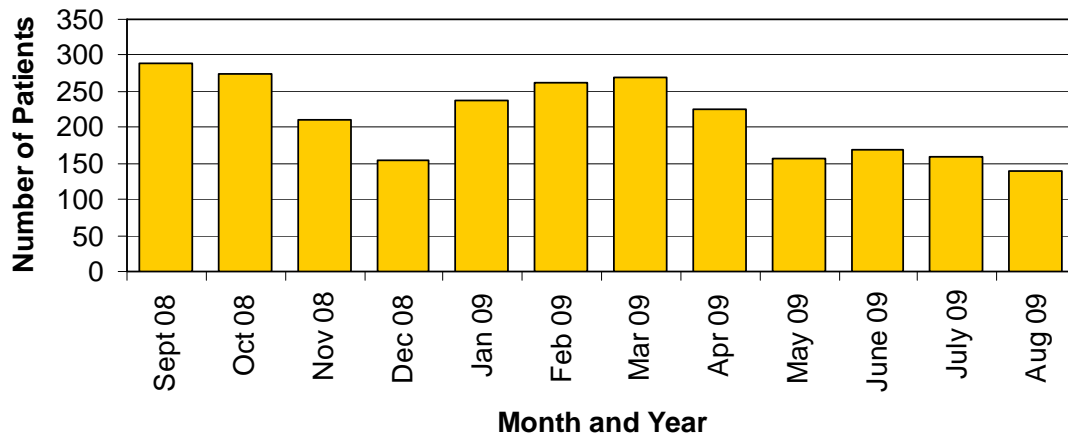
Protocol Updates: The updates were effective on July 1. Please contact EMS for questions or problems.

Below are the patient destination data in graphic form:



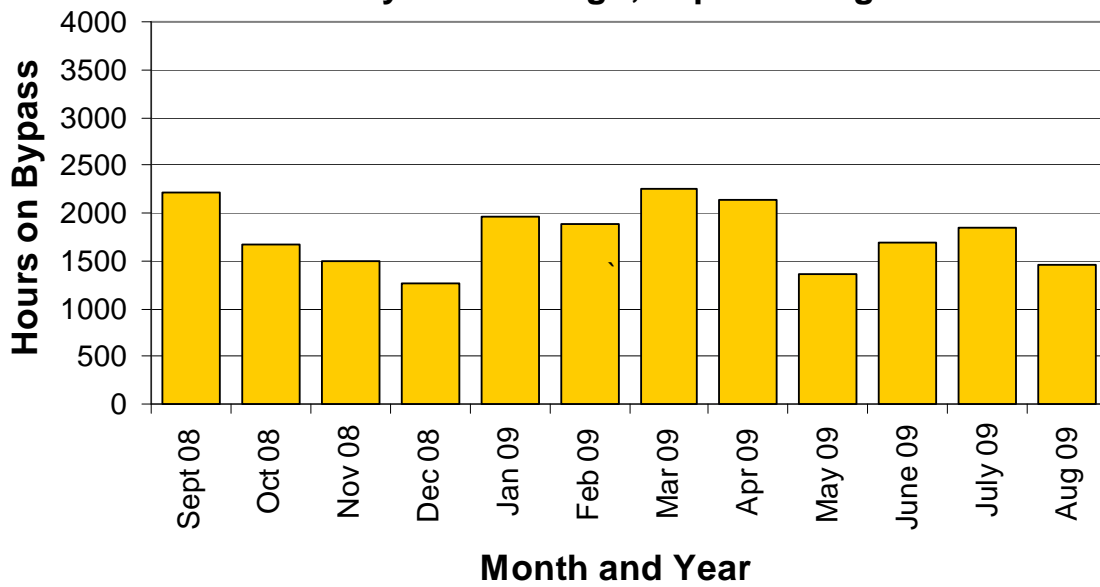
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, MICN Records, Sep 2008 – Aug 2009. Note: Numbers based on Run Outcomes of Transport by Unit and Transport by Other

Number of Patients who Bypassed the Requested Hospital, County of San Diego, Sept 08 - Aug 09



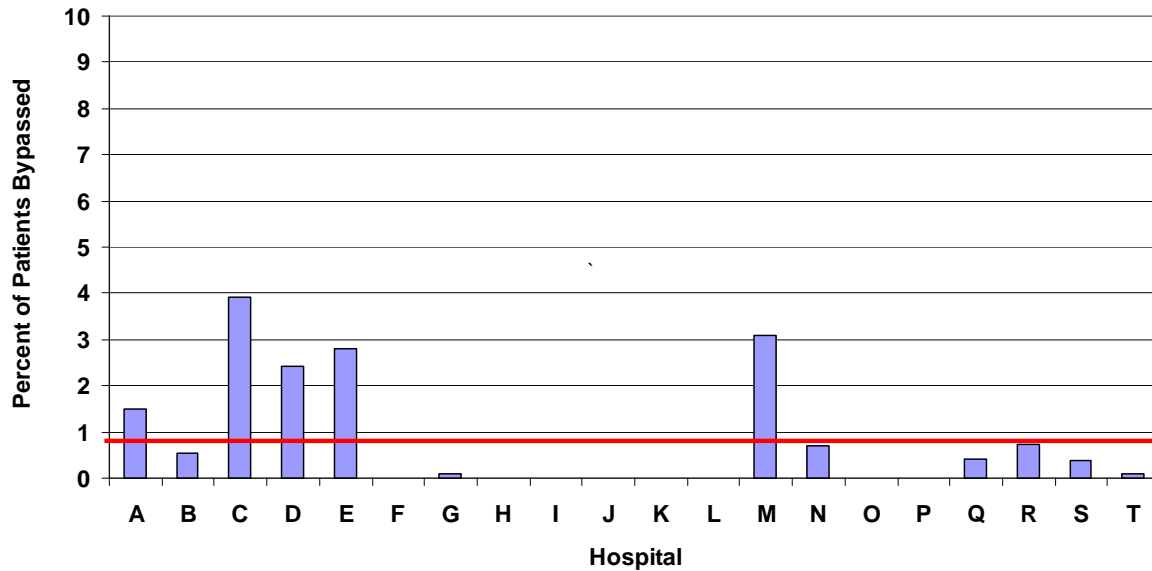
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, MICN Records, Sep 2008 – Aug 2009. Note: Numbers based on Run Outcomes of Transport by Unit and Transport by Other

Total Hours on Emergency Department Bypass County of San Diego, Sept 08 - Aug 09



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, MICN Records, Sep 2008 – Aug 2009.

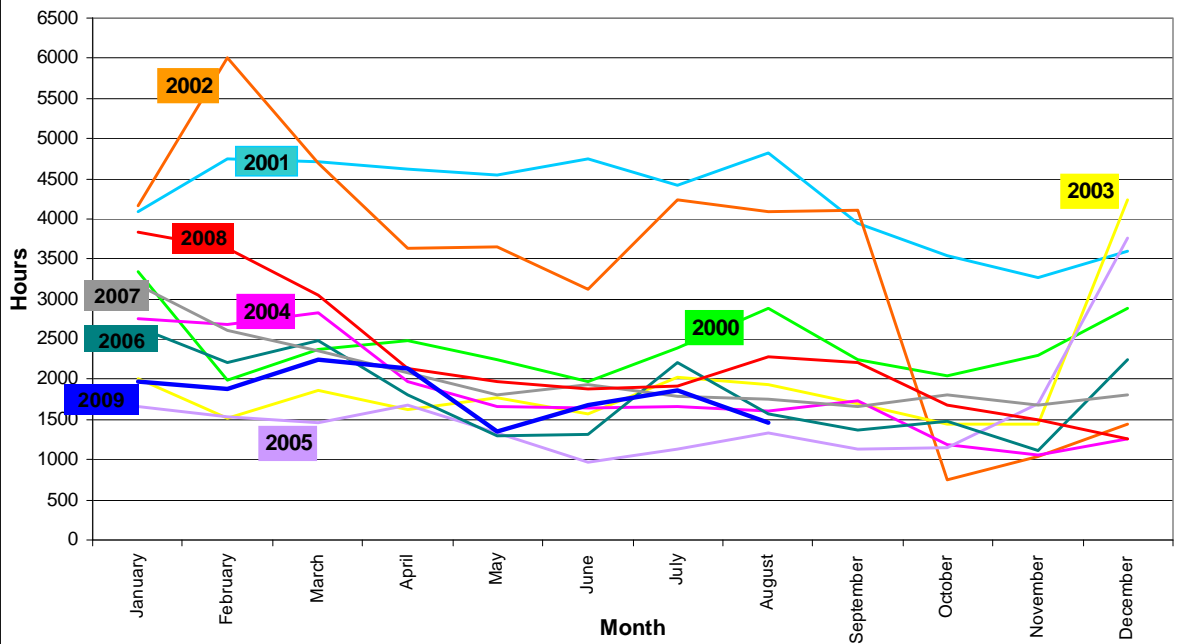
Percent of Patients Bypassed per Hospital, Aug 2009



Note: The red line represents the mean value of percent of patients bypassed per hospital, Aug 2009

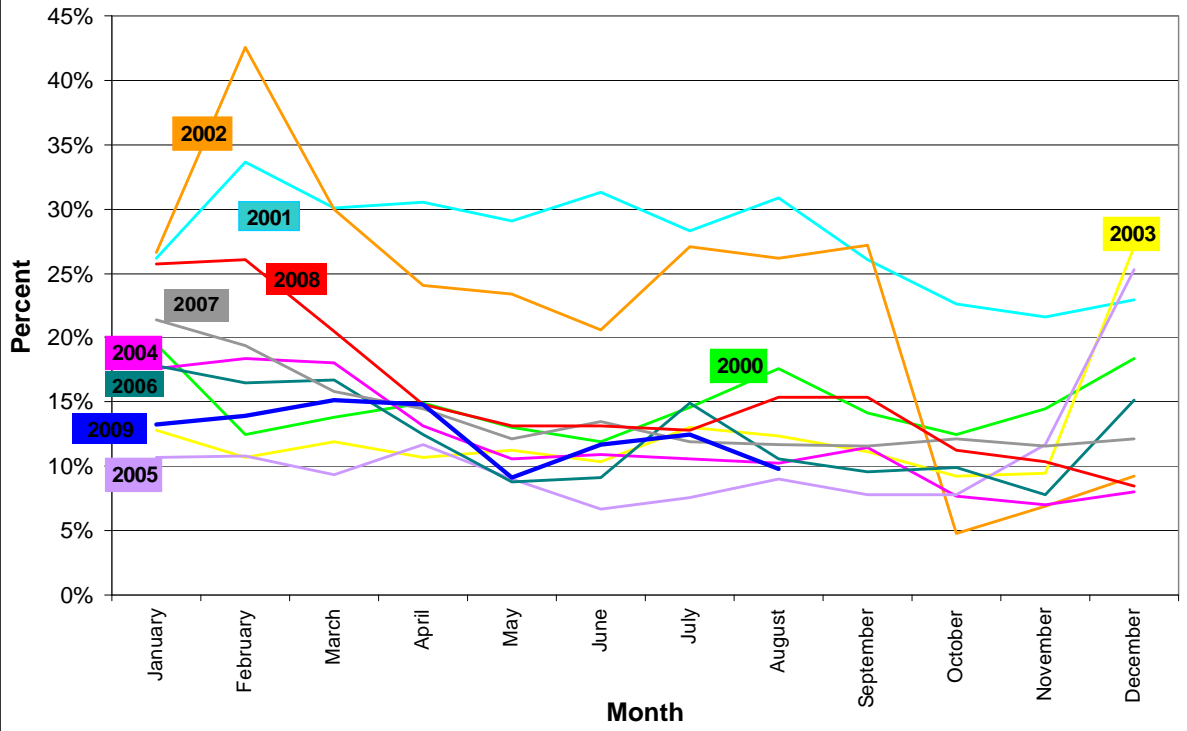
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, MICN Records, Aug 2009. Note: Numbers based on Run Outcomes of Transport by Unit and Transport by Other

Total Hours on ED Saturation by Month and Year, San Diego County, Jan 2000 - Aug 2009



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, MICN Records, Jan 2000 – Aug 2009.

Overall Percent Hours on ED Sat Per Month San Diego County, Jan 2000 - Aug 2009



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, MICN Records, Jan 2000 – Aug 2009.