

---

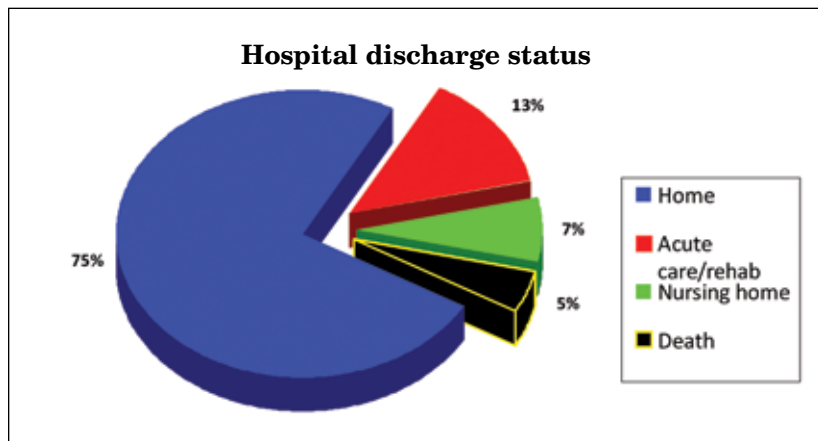
NTDB® data points

## Dark side of the moon

by Richard J. Fantus, MD, FACS

The moon, Earth's only satellite, circles in an elliptical orbit at 2,300 miles per hour and takes approximately 27 days to complete. Spacecraft have been studying the moon for almost 50 years. Direct lunar exploration began in 1959 when probes from a Soviet Luna spacecraft impacted the surface. On July 20, 1969, Neil Armstrong, with Apollo 11, fulfilled humanity's dream of putting a man on the surface of the moon. Over time, 850 pounds of moon rock have been brought back for analysis. However, much of the composition and structure of the moon is still a mystery. Apart from the science, however, there is a large body of conjecture and some facts relating to the various effects of full moons.

The autumn full moons in the northern hemisphere are special. Because of the elliptical orbit, the moon rises earlier from one night to the next. This results in no long period of darkness between sunset and moonrise. The September full moon is the harvest moon, allowing for more light and a longer time to harvest crops while the 14th of this month marks the hunter's moon, also known as the "blood moon" or "sanguine moon." There is a longer period of light, the leaves are falling, the deer are fattened, and it is time to hunt. The fields have been harvested and the hunters can easily see



their prey, which has come out to gather food.

The moon has fascinated inhabitants of earth for centuries. Shrines and monuments have been built honoring her while calendars follow her orbits. Full moons have long been implicated in our behavior. The word "lunatic" is derived from the Latin "luna," or moon. Early psychologists encouraged extra staffing of the asylums in the occasions of full moons. It is only fitting that in this month, the month of the "blood moon," this column looks at the effect of full moons on trauma activity.

In order to examine the occurrence of injuries sustained during a full moon, the National Trauma Data Bank® Dataset 7.1, records were searched by date of injury. Using a list of full moon dates for 2002 through 2006

(one full moon date per month, 12 months per year, and a five-year window for this dataset), there were 60 dates included in the full moon injury group. Out of 1,926,245 incidents, there were 54,482 records with discharge status that occurred on a full moon date and 1,698,273 records with discharge status that occurred on a date when there was no full moon. This figure represents approximately 3.1 percent, which is very close to the percentage of full moon days to non-full moon days (60 full moons divided by 1,824 days equals 3.2 percent).

Of the 54,482 discharges on a day with a full moon, 40,724 were discharged to home, 7,320 to acute care/rehabilitation, and 3,938 to nursing homes; 2,500 died. (These data are displayed in the graph on this page.) The

patients were 65.6 percent male, and on average 38.5 years of age; they had an average length of stay of 5.36 days and an average injury severity score of 10.2. Of those patients also tested for alcohol, 25 percent tested positive and of those tested for drugs, more than half tested positive. These data were similar to the group of patients on days with no full moon.

Special allowances have been made for full moon events. Charles Hyde was acquitted of murder charges in the 1880s on the grounds of being under the

spell of a full moon. The records in the NTDB do not appear to validate an increase in trauma occurrence or lethality based on this cursory review. The next time you are out and taking a moonlit walk on a full moon night, you will not have to be concerned about the potential dark side of the moon.

The full NTDB *Annual Report Version 7.0* is available on the ACS Web site as a PDF and a PowerPoint presentation at <http://www.ntdb.org>.

If you are interested in submitting your trauma center's data,

contact Melanie L. Neal, Manager, NTDB, at [mneal@facs.org](mailto:mneal@facs.org).

### Acknowledgment

Statistical support for this article has been provided by Sandra M. Goble, MS.

*Dr. Fantus is director, trauma services, and chief, section of surgical critical care, Advocate Illinois Masonic Medical Center, and clinical professor of surgery, University of Illinois College of Medicine, Chicago, IL. He is Chair of the ad hoc Trauma Registry Advisory Committee of the Committee on Trauma.*



**INTERNATIONAL SURGICAL WEEK**  
ADELAIDE AUSTRALIA 6 – 10 SEPTEMBER 2009

[www.isw2009.org](http://www.isw2009.org)






**43<sup>rd</sup> World Congress of Surgery of the INTERNATIONAL SOCIETY OF SURGERY ISS/SIC**

**Adelaide Convention Centre, Adelaide, South Australia**  
6 – 10 September 2009

Don't miss the most important biennial surgical meeting in the world. ISW2009 will provide high quality, state-of-the-art meeting covering topics including clinical surgery, experimental surgery and related sciences, surgical education and the socioeconomic aspects of surgical care. In collaboration with the integrated societies IAES, IATSIC, IASMEN and BSI, the partner society ISDS and the various participating societies ISW2009 will offer topics of interest to all general surgeons plus a program of meetings devoted to specialities and subspecialities.

ISW2009 in Adelaide will allow you to experience a 'snapshot' of Australian culture. Adelaide, with its colonial grace and style has world class convention facilities with accommodation for delegates within a few minutes walk. Adelaide is surrounded by Australia's premier wine growing areas, has lovely white sand beaches and is the southern gateway to the red outback.

On behalf of the organizing committee we extend our warmest invitation to attend – and are sure that you will have an enjoyable time, both professionally and socially.

**Deadline for Abstract submission:**  
4 January 2009

**We look forward to seeing you in 2009.**

*Come to Adelaide in 2009!*

**Congress & ISS/SIC President**  
Michael Sarr, Rochester, Minnesota, USA

**Congress Vice Presidents**  
Guy Maddam, Adelaide, Australia  
Teria Young-Fadok, Scottsdale, USA  
Herring Dralle, Halle, Germany  
Ari Leppaniemi, Helsinki, Finland  
Peter Soeters, Maastricht, Netherlands  
Raimund Jakesz, Vienna, Austria

**Secretary General ISS/SIC**  
Felix Harder, Basel, Switzerland

**Local Organising Committee President**  
Peter Malycha, Adelaide, Australia

**Vice President**  
Ian Chiv, Auckland, New Zealand

**Members (Australia)**  
Alastair Brewer, Past President ISS/SIC and President LOC ISW1987  
Ian Gough, President Royal Australasian College of Surgeons  
Alicia Bochner, Women in Surgery  
Guy Maddam, ISW2009 Vice President  
Rob Parkyn, IAES  
Jim Kellas, BSI  
David Watson, ISDS  
Terry Spamer, WOFAPS

**Integrated and Partner Societies**  
IAES International Association of Endocrine Surgeons  
IATSIC International Association for Trauma Surgery and Intensive Care  
IASMEN International Association for Surgical Metabolism and Nutrition  
BSI Bariatric Surgery International  
ISDS International Society for Digestive Surgery

**Congress Secretariat ISW2009**  
SAPMEA Inc.  
200 Greenhill Road  
Eastwood, SA 5063  
Australia

**T: +61 8 8274 60 55**  
**F: +61 8 8274 60 00**  
**E: [isw2009@sapmea.asn.au](mailto:isw2009@sapmea.asn.au)**  
**[www.isw2009.org](http://www.isw2009.org)**

