

Acute Care Services Committee  
Agency Report for  
Burn Intensive Care Methodology Final Steps in the  
Proposed 2012 State Medical Facilities Plan

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*Topic and Background Information:*

After many years of service, the existing Burn Intensive Care Services Units reached the threshold for additional need in that reported statewide utilization of beds was in excess of 80% for two consecutive fiscal years prior to development of the North Carolina Proposed 2012 State Medical Facilities Plan (SMFP or “Plan”). The existing methodology did not provide instruction about how to calculate the number of beds needed when the need determination criteria were met. Therefore, the Proposed 2012 Plan presented four alternatives of steps to the methodology to determine the projected days of care for the state and the number of additional burn intensive care beds needed at 80% occupancy.

Alternatives were based on the number of years for projection of future need – one year, two, three or four years beyond the most current data. For the 2012 SMFP, the proposed alternatives would project the following need for beds:

- Alternative One – 8 beds
- Alternative Two – 12 beds
- Alternative Three – 16 beds
- Alternative Four – 21 beds

The State Health Coordinating Council (SHCC) received two comments regarding the methodology choices. UNC Hospitals recommended that more study be done before finalizing the step for the methodology. Wake Forest Baptist Health commented by supporting Alternative One, which projects needs for eight additional beds statewide.

*Analysis/ Implications:*

Nationally, according to the American Burn Association Burn Incidence and Treatment in the United States: 2011 Fact Sheet ([http://www.ameriburn.org/resources\\_factsheet.php](http://www.ameriburn.org/resources_factsheet.php)), an estimated 450,000 people with burn injuries receive medical treatment annually; an estimated 45,000 people are hospitalized with burn injuries, 25,000 of whom are at hospitals with burn centers; and of those admitted to burn centers, 94.8% survive. In North Carolina, utilization of burn intensive care services has increased from 61% in 2006 to almost 92% in 2010.

Two Verified Burn Centers (VBCs) operate currently in North Carolina; however, with the projected need for additional burn intensive care beds comes an opportunity for development of capacity in other parts of the state. A regionalized approach to burn injury treatment may improve patient outcomes, as has been demonstrated nationally for trauma centers (“A National Evaluation of the Effect of Trauma-Center Care on Mortality”, New England Journal of Medicine 2006; 354: 366-378; “The Effectiveness of Regionalized Burn Care: An Analysis of 6,873 Burn Admissions in North Carolina from 2000 to 2007”, Journal of American College of Surgeons 2011 April; 212(4):487-93). The authors of the latter study caution that burn center verification, while a critical aspect of ensuring quality burn intensive care treatment, *alone* “does not ensure effective regional burn care at the systems level. Through collaborative efforts and

initiatives aimed at developing a true regional burn care system, VBCs may be able to more effectively regionalize burn care and potentially improve outcomes. Further analysis is certainly warranted” (page 492).

*Agency Recommendation:*

The Agency appreciates the input received during the public comment period, and recognizes the seriousness of the issue at hand. The Agency has considered the increasing need at the state level for more burn intensive care beds, the statistics at the national level, and the research indicating the benefits of a regionalized approach to trauma care, and the suggestion that the same can be helpful for burn treatment services. Therefore, the Agency recommends approval of Alternative Three for 16 beds available statewide with the following requirements: (1) applicants be a Level I or Level II Trauma Center; and (2) applicants commit to becoming a Verified Burn Center, which is a program of the American Burn Association and the American College of Surgeons.