When One Defibrillating Shock Isn’t Enough: New Clinical Evidence for Increasing the Dosage

**ESCALATING DOSAGE: A STRATEGY TO MAXIMIZE DEFIBRILLATION EFFECTIVENESS**

New clinical evidence from two out-of-hospital ventricular fibrillation (VF) studies confirms the effectiveness of current AHA recommendations for first shock dosage (200J manual; 150-200J AED). But for patients who need additional shocks, these studies show that repeating the same first shock dosage is inferior to a strategy of increasing to a higher dosage.

- **High rate of 1st shock success with LIFEPAK® Defibrillator/Monitor at AHA-recommended initial manual dosage (200J; 92%)**
- **Diminishing return from repeating the dosage after a first shock failed (92% first shock vs. 61% second shock success, P=0.001)**
- **121/467 (27%) known survivors at 30 days: 51% of them received 360J**

The new clinical evidence from these two studies shows a benefit from escalating dosage. Escalating protocol is consistent with the AHA Guidelines 2005 recommendation for subsequent dosage:

“...the rescuer may use a selected [biphasic] dose of 200J for the first shock and an equal or higher dose for the second and subsequent shocks.” AHA Guidelines 2005: IV-40; emphasis added.

**BROAD DOSAGE CAPABILITY: AN IMPORTANT CONSIDERATION FOR PATIENT CARE**

Clinical studies have shown a majority of cardiac arrest victims with an initial rhythm of VF will experience repeated episodes of VF over the course of a resuscitation attempt. For any given VF episode the initial shock may fail; in fact defibrillation becomes more difficult with each recurrent episode. For these patients in both hospital and out-of-hospital settings, increasing the dosage of subsequent shocks above the dose used for the first shock has proven to be a better strategy for terminating VF than simply repeating a failed dosage. LIFEPAK defibrillator/monitors provide broad dosage capability, up to 360J. For more information, please contact your Physio-Control representative at 800.442.1142 or visit www.physio-control.com.