

## The Defibrillator Misadventure

I was in the third year of my pediatric residency and was on call in the PICU in the middle of a sleepless night on a very busy, weekend. I was fortunate to be working with a group of very experienced PICU nurses, all of them PALS certified, the charge nurse being an instructor. One of the patients in the unit was a young boy who was recovering from cardiac surgery. He was having recurrent episodes of ventricular tachycardia, which required defibrillation to stop the arrhythmia.

I had just completed defibrillating the child, who was stable, when I was called to the ward urgently to see another patient. While out on the ward, I received a STAT page back to the PICU. I ran back and the nurses directed me back into the room with the little boy who was again having ventricular tachycardia, and his blood pressure was falling rapidly. The charge nurse thrust the paddles into my hands; I placed them on the child's chest, called out the usual "all clear" warnings, and then proceeded to deliver the energy.

I knew something was different immediately by the way the child's body violently lifted off of the bed when the energy was delivered. I looked back at the machine and was horrified to see that the setting was at adult levels, and the child had received about 5 times the intended number of joules with the procedure. I quickly assessed the child, who was in sinus rhythm, with a normal blood pressure and perfusion. He did not have burns on his chest as a result of the high number of joules delivered.

I examined the machine and explored how this had happened. The bedside nurse had shut the machine off after I had left the unit, and when she had turned it on again it did not reset to the previous joules provided, but to the factory setting of the dose of joules used for adults (though this was a machine exclusively for pediatric patients!). The nurses (there were three in the room) nor I confirmed the joules to be delivered prior to proceeding. I had assumed the machine was set as when used previously, and did not confirm in my haste to proceed. I suppose I had also become too comfortable with performing the procedure, which I had done several times already that evening.

I felt physically ill after this happened, and the nurses suggested I sit down before I fall down, as I was very pale. I then stated that I needed to call the attending physician, who was at home to let him know what had happened and complete an incident report. I was told very firmly by the charge nurse that I was not permitted to do so. She stated that we would all be in "a lot of trouble for being so careless", and that the child was fine, and we should not discuss it further. This was very stressful, and resulted in many lost hours of sleep, and much guilt worrying that someone would "find out". I felt I was being extremely dishonest, was ashamed about the error, and not admitting to it. As well, the parents were not present at the time, and were never told of the event.

Interestingly, the little boy never reverted back to his arrhythmia again, and fortunately he made a nice recovery and had an uneventful remainder of his hospital stay (I did check up on him daily!). After some time, I became comfortable enough with the event that I was able to teach others what I had learned from my own error – when teaching PALS I

remind people about non-pediatric friendly defibrillators, and emphasize the importance of confirming the joule setting.