The Opioid Square: A New Way to Learn Opioid Conversions

Heidi Young, MD¹, James Shear, MD², Yvonne Hernandez, PhD³, Peggy Compton, RN, PhD, FAAN⁴

¹Medstar Georgetown University Hospital, Washington, DC, ²Virginia Hospital Center, Arlington, VA, ³Georgetown University School of Medicine, Washington, DC, ⁴Georgetown University School of Nursing, Washington, DC

**Objectives:**

The Opioid Square tool was evaluated in comparison to a classic conversion table in a single 2nd year medical school class, assessing both accuracy in making opioid conversions and preference for each tool.

• Determine the degree to which the Opioid Square tool assists 2nd year medical students to correctly calculate opioid conversions

• Evaluate 2nd year medical student’s preference to use the Opioid Square in comparison to the classic equianalgesic tables to calculate opioid conversions.

**Background**

• Equianalgesic conversions between opioid drugs and oral and intravenous formulations are a clinically important skill, for all practitioners who treat pain¹.

• Accuracy is critical to preventing adverse events². Opioid conversion tables are a commonly used tool for teaching this skill, however needs assessment at our institution reveals the classic conversion table is sometimes difficult for learners to understand.

• A novel visual tool, the Opioid Square was developed to provide a different visual framework for opioid conversions.

**Methods**

• The sample consisted of 200 students at a single academic institution who were learning opioid conversions for the first time during their Pharmacology class.

• Students were taught conversions using both the standard conversion table, and the Opioid Square method. An eight item conversion quiz followed, on various opioids and formulations of each.

• Students were allowed to use either tool and preferences were assessed with qualitative comments.

**Results**

• 187/200 students completed study

• Accuracy of conversion questions generally good (85-100% correct)

• No statistical differences in accuracy between Opioid Square and conversion table

**Discussion**

• Providing an alternative visual tool to the classic opioid conversion table was well received by students in this study.

• Study is limited to single institution in only 2nd year medical school class

• Future study may include evaluation in post graduate housestaff, faculty, or nursing students

**Conclusions**

• The Opioid Square tool is not inferior to the classic opioid equianalgesic table for helping students make accurate conversions.

• Many students preferred the Square. This tool may provide educators with an alternative visual framework for teaching conversions.

**References**
