In 2011 the Joint Commission recommended that magnesium sulfate be written out and not abbreviated as MgSO4, as this designation can be misinterpreted as MS or MSO4, which are abbreviations for morphine sulfate.\(^{18}\)

Table 1: Steps for Preparation, Storage, Ordering and Administration of Magnesium Sulfate

| Step 1: Preparation | a. Purchase commercially prepared standard concentrations of magnesium sulfate.  
|                     | b. Use standard premixed magnesium sulfate infusions in a volume different than Oxytocin to prevent accidental loading dose.  
|                     | c. Pharmacy should prepare any non-commercially prepared solutions.  
|                     | d. Use a piggy-back bag for magnesium sulfate loading doses, do not use the main infusion bag |
| Step 2: Storage     | a. Label bags with a High Alert Sticker or distinctive colored label.  
|                     | b. Loading dose bags should be stored in a separate pharmacy area to prevent mix-ups.  
| Step 3: Order/Transcribe | a. Use preprinted orders and order sets with the entire medication spelled out when prescribing magnesium sulfate.  
|                     | b. Utilize a High Alert warning on the automated dispensing machine (ADM) when magnesium sulfate is withdrawn.  
| Step 4: Administration | a. Label tubing used for infusing magnesium sulfate appropriately.  
|                       | b. An infusion pump should always be used. A ‘smart’ infusion pump with patient safety software activated should be used when available.  
|                       | **NOTE: An independent double check should be performed by two nurses when magnesium sulfate is initiated, dose is changed and at change of shift.** |
| Step 5: Discontinuation | a. Disconnect tubing from main line immediately when magnesium sulfate is discontinued. |