

Joint International Conference and Expo on Industrial Pharmacy & 5th Global Pharmacovigilance Summit

April 28-29, 2016 Dubai, UAE

Biosynthesis of size controlled silver nanoparticles by *Fusarium oxysporum*, their Antibacterial and Antitumor activities

Sherif Moussa Hussein
Ain Shams University, Egypt

The biosynthesis method is thought to be clean, nontoxic and environmentally acceptable. Many microorganisms produce extracellular or intracellular metal nanoparticles with different efficiency, size and shape. The goal in this study is to control the size of silver nanoparticles. The preliminary screening of microorganisms, *Fusarium oxysporum* was selected to control size of silver nanoparticles. Parametric optimization showed smallest particle size when *Fusarium oxysporum* treated with 10–2 M silver nitrate (metal ion concentration) at 50°C with 11 g wet biomass at pH 6 when fungal age 7 days when incubated for 72 h silver nanoparticles produced was characterized by TEM which revealed the formation of spherical, well-dispersed nanoparticles with size between 5 and 13 nm and FTIR gives the bands at 1619 and 1392.5 corresponding to the binding vibration of amide I and II bands of proteins, respectively. Antibacterial activity against *Escherichia coli* and *Staphylococcus aureus* showed maximum zone of inhibition of 2 mm and 1.6 mm, respectively, at 80 µL of silver nanoparticles. Cytotoxic activity was expressed as IC₅₀ that is found to be 121.23 µgcm⁻³.

huseinymoussa@yahoo.com

Registered nurses perceptions of Medication administration errors and their management in Saudi Arabian hospitals

Talal Alreshidi
Salford University School of Nursing and Social Care, UK

Background: Medication error is a global issue that can cause serious harm and even death. Nurses who are responsible for administering medication at the patient interface have the potential to contribute to the problem by making medication administration errors or preventing errors before medication is given.

Aims: The study was designed to explore nurses' perceptions of medication administration errors in Saudi Arabia. It sought to collect nurses' views about the factors that may influence medication administration errors, barriers of error reporting and strategies to promote safe medication administration.

Methods: The methodological design adopted for this study is a non-experimental, descriptive mixed method. Quantitative and qualitative components were applied sequentially in two phases. Questionnaires (N=236), and semi structured interviews (N=19) were used to further explain nurses' perceptions and views on managing medication errors in Saudi Arabia.

Results: The systematic review highlighted a lack of in-depth and comprehensive studies of nurse's perceptions of medication administration errors. This study found that in line with the international literature there are a range of factors that contribute to errors, however in Saudi Arabia the highest perceived factors were high workload and poor handwriting. There is an underreporting of errors and the fear of the consequences remains the most significant barrier against reporting medication errors, but nurses weigh up the risk to the patient before deciding whether to report it or not. Solutions for minimising errors can be found in improving education and technology.

Conclusion: The findings in the current study offer a comprehensive understanding of the views and perceptions of nurses regarding medication errors within the Saudi context. This provides valuable local evidence that can be built into appropriate professional education and procedures for managing medication administration errors for both Saudi and international nurses employed in Saudi Arabian hospitals and thus improve patient safety.

talal7990@hotmail.com