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## Inpatient Diabetes and the Pharmacist Role

Johnathan Jernigan<sup>1</sup>, Sonia Lott<sup>2\*</sup>

<sup>1</sup>University of Florida, Jacksonville, USA

<sup>2</sup>West Florida Hospital, Pensacola, Florida, USA

### Commentary Article

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#### \*For Correspondence

Sonia Lott, Pharmacy Director, West Florida Hospital, Pensacola, Florida, USA.

**E-mail:** [sonia.lott@hcahealthcare.com](mailto:sonia.lott@hcahealthcare.com)

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## INTRODUCTION

There are currently more than 29 million Americans battling diabetes in the United States today <sup>[1,2]</sup>. Of the reported 29 million diagnoses, approximately 25% of them go untreated <sup>[1,3]</sup>. As a potentially crippling disease, diabetes results from the body's improper use of glucose and insulin production. This resulting glucose and insulin intolerance increase the patients' risk of microvascular and macrovascular damage. Secondary disease states such as hypertension, dyslipidemia, stroke, and kidney disease are but a few of the costs both to patients and our healthcare system. In 2012 the overall cost of diabetes to the United States was \$245 billion; this included \$176 billion in direct medical costs and \$69 billion in reduced productivity <sup>[1]</sup>. Hospital care accounted for more than 43% of the direct medical costs <sup>[1]</sup>.

In an outpatient setting, the backbone of diabetes treatment is managed through a variety of ways; medication, diet, and exercise. Currently in the inpatient setting, diabetic patients are usually treated with sliding scale insulin and a continuation of their home medication. However, with the acute changes in the patient condition and the addition of new medications, this approach often leaves the patient's blood sugars inadequately controlled <sup>[4]</sup>. This use of sliding scale insulin has been questioned by experts in its efficacy in controlling blood sugar levels and has been linked to increases in hospital stay <sup>[4]</sup>. Interdisciplinary teams of physicians, clinical pharmacists, nurses, and clinical dietitians collaborate to improve patient care by individualizing patient therapy. As a medication expert, the clinical pharmacist is in a unique position to adjust and optimize drug therapy for this patient population.

In the inpatient setting, medication reconciliation is performed at admission, during changes in levels of care and at patient discharge. The clinical pharmacist in the emergency department is the first critical step. When the patient enters the inpatient setting, the emergency room pharmacist performs medication reconciliation. This is a prime opportunity to clarify the patient's medication profile and make adjustments and additions to their diabetic therapy. Our clinical pharmacists will continue to monitor their blood glucose and medications through surveillance software as the patient transitions thru levels of hospital care. Finally, at discharge, clinical pharmacists are given another opportunity to benefit the patient through discharge medication reconciliation.

Diabetes is a debilitating and costly disease. Inappropriate therapy management will increase the cost of the inpatient treatment and will decrease the quality of life. Hospital pharmacists are in an ideal position to manage the diabetic patient. Clinical pharmacists in the decentralized pharmacy model i.e., on the floors, critical care areas and in the emergency department, can proactively manage and individualize the diabetic patient's care.

As does other medication, diabetes medications have their complications. Commonly, these are seen as side effects, adverse events, errors, or compliance issues. Pharmacists are capable of monitoring hospital patients daily to ensure insulin adjustments are being made, drug-drug or drug-disease interactions are being evaluated, and the patients' disease is being managed properly.

Finally, the pharmacist performs medication reconciliation at discharge. This is a pivotal part in the overall care of the patient. Pharmacists again assess the patient from a medication focus, and determine if the medications are appropriate and feasible for the patient after discharge.

## REFERENCES

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