

# Jordan University of Science and Technology

## A randomized controlled trial to assess pharmacist- physician collaborative practice in the management of metabolic syndrome in a university medical clinic in Jordan.

**Authors:** Hammad AE, Yasein N, Albsoul-Younes A

**Abstract:** BACKGROUND: The prevalence of metabolic syndrome is increasing worldwide, and patients with metabolic syndrome have increased risk of developing cardiovascular disease and type 2 diabetes. Although specific criteria vary, the National Cholesterol Education Program Adult Treatment Panel III (NCEP/ATP III) criteria (2002) defined metabolic syndrome as the presence of 3 or more of the following 5 components: waist circumference more than 102 centimeters (cm) for men or more than 88 cm for women; triglycerides 150 milligrams per deciliter (mg per dL) or more; high-density lipoprotein cholesterol (HDL-C) less than 40 mg per dL for men or less than 50 mg per dL for women; blood pressure (BP) 130/85 millimeters mercury (mm Hg) or more; and fasting blood glucose 110 mg per dL or more. OBJECTIVE: To evaluate the effect of a pharmacist-physician collaborative practice compared with usual care in the management of patients with metabolic syndrome as defined by the NCEP/ATP III criteria. METHODS: A prospective, randomized controlled trial conducted in family medicine outpatient clinics in Jordan enrolled 199 patients who met the NCEP/ATP III criteria for metabolic syndrome during an enrollment period from March 15, 2009, through May 10, 2009. Patients were randomized into 2 groups, with 110 in the intervention group (pharmacist-physician collaborative practice) and 89 in usual care (physician only). The patients in the intervention group were provided with pharmacist recommendations and pharmaceutical care counseling. Outcome measures included metabolic syndrome status (binomial) and changes in mean values for each metabolic syndrome component (waist circumference, triglycerides, HDL-C, fasting blood glucose, and systolic and diastolic BP) and for body weight. A 2 × 2 contingency table with a Pearson chi-square test was used to assess bygroup differences in metabolic syndrome status after 6 months of followup. In difference-in-difference analyses, t-tests (Mann-Whitn