**Assessment of the degree of food poisoning and the** **bacterial contamination in different food substances from fast food restaurants around Al Haram Al Nabway in Al Madinah Al Monowarah.**

**Ahmed Refat a , Basem Sheik b, Hassan Abdel-Salam**  **c , Quadi Mangour d,** **Mohamed Abd AL-Samad d.**

**a** Department of clinical toxicology- **b** Department of medical education, faculty of medicine, Taibah University. **c** Department of microbiology - Faculty of Pharmacy - Taibah University, **d** Department of Microbiology - Faculty of Medicine - Taibah University.

**Abstract**

This study was performed in order to determine the level of bacterial contamination in different food substances (*n*=30) which present from fast food restaurants around Al Haram Al Nabway in Al Madinah Al Monwarah. A total of 150 samples were collected from wrapping material of the food, outer surface of the sandwiches and food substances inside the sandwiches .

A total of 16 different bacteria were isolated, of which the most common was *Staphylococcus aureus* (67/150; 45%), followed by coagulase-negative staphylococci (54/150; 36%), diphtheroid bacilli (39/150; 26%), *Bacillus* spp. (14/150; 9.3%), and *Escherichia coli* (12/150; 8%). Poor hand hygiene was indicated by high levels of *S. aureus* and *E. coli* on samples taken from restaurant with which worker with bare hand and without gloves or just left side gloved hand. Although bacterial loads on gloved hand samples were found to be significantly lower (*p*<0.05) than ungloved hand samples, these loads were not within acceptable limits. These results show that the hands of food handlers are an important contamination source in this establishment. In this study, 147 bacterial isolates were from bare hand samples while 95 bacterial isolates were from left hand gloved samples ( *p*<0.05). All of the food handlers were right-handed.

As a result, the poor hand hygiene, improper glove, lack of mouth and nose mask, unavailability of fresh washing water supply, contaminated food preparations surfaces use by the food handlers was emphasized and we concluded that the training in personal hygiene and food safety should be improved, and inexperienced personnel should not be employed in kitchens without being well trained. On the other hand, if glove use principles are performed correctly, it may be efficacious for decreasing of bacterial load on hands, particularly, establishments where hand hygiene control can not performed properly or inexperienced personnel are employed.

الأسم الباحث الرباعي:

**أحمد رفعت رجب على.**

الجهة التي يتبع لها:

**كلية الطب - جامعة طيبة - المدينة المنورة.**

المسمى الوظيفي:

**أستاذ مساعد**

آخر الشهادات العلمية التي حصل عليها:

**دكتوراه فى السموم الإكلينيكية.**

عنوان البحث:

**تقييم مستوى التسمم البكتيري الغذائي فى الأطعمة سريعة تحضير فى مطاعم الوجبات السريعة المحيطة بالحرم النبوي الشريف بالمدينة المنورة.**

هل قدم البحث لندوات أو مؤتمرات سابقة:

**لا**

عنوان الباحث البريدي**:**

**المدينة المنورة - جامعة طيبة – كلية الطب.**

رقم الجوال:

**0540990033**

بريد الكتروني:

[**ahmedrefat1973@yahoo.com**](mailto:ahmedrefat1973@yahoo.com)