

الآيه القرآنيه:

﴿ ١٣ ﴾ اللَّهُ لَا إِلَهَ إِلَّا هُوَ وَعَلَى اللَّهِ فَلْيَتَوَكَّلِ الْمُؤْمِنُونَ ﴿ ١٣ ﴾

صدق الله العظيم

﴿ ١٣ ﴾ سورة التغابن - الآيه

DEDICATION

To my mother..

father..

brothers and sisters..

teachers..

friends..

all medical care workers in tropical countries..

with love, respect and appreciation..

ACKNOWLEDGMENTS

First of all I would like to express my praise and gratitude to **ALMIGHTY ALLAH** for giving me health and power to complete this work.

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ABSTRACT

Use of mobile phones by Health Care Workers (HCWs) in the operation theatre (OT) and Critical Care Units (CCU) may have serious hygiene consequences as the patients are more vulnerable to hospital acquired infections.

This study investigated the possibility of spreading hospital acquired infection through the usage of mobile phones by HCWs working in OT and CCU, due to contamination of their hands and mobiles.

This cross sectional study was carried out in Hag Alsaffy Teaching Hospital. Hundred participants (n=100) each (doctors, nurses and cleaning workers) were enrolled randomly. From each participant two samples were collected, one from the dominant hand and the other from the mobile phone (52 doctor, 28 nurses and 20 cleaning workers). The samples were processed for the isolation and identification of possible contaminating bacteria and their antibiotic susceptibility patterns were determined.

Eighty seven out of 100(87%) mobile samples showed significant bacterial growth, while 95/100(95%) hand samples showed the same results.

Furthermore, 22 of the 25 isolated *Staphylococcus aureus* (88%) were methicillin-resistant (MRSA) and 21 (84%) were vancomycin-resistant (VRSA) in the hands and mobiles. All isolated Gram-negative organisms from both mobiles and hands were resistant to ampicillin (100%).

In conclusion, large proportion of the mobile phones used by HCWs as well as their hands were found to carry different species of the reported nosocomial bacteria.

ملخص الاطروحة

استخدام الهاتف النقال بواسطة العاملين في المجال الطبي في غرف العمليات والحالات الحرجة ينتج عنه سلسلة من التأثيرات السلبية علي المرضى ويجعلهم عرضة للعدوي المكتسبة بواسطة المستشفيات. سوف تساعد هذه الدراسة في الكشف عن احتمالية انتشار عدوي المستشفيات نتيجة للإستخدام الخاطئ للموبايل بواسطة العاملين في المجال الطبي داخل غرف العمليات وغرف الحالات الحرجة.

اجريت هذه الدراسة بمستشفى حاج الصافي التعليمي لثلاثه مجموعات (الأطباء، الممرضين وعمال النظافه)، حيث تم أخذ مائة عينه عشوائيه منهم (n=100). من كل متبرع عينتين واحده من اليد والاخري من الموبايل (عدد المتبرعين المأخوذه منهم العينات: الأطباء ٥٢ والممرضين ٢٨ وعمال النظافه ٢٠).

أجري عزل للعينات في وسائط مزرعيه، وتم التعرف علي البكتريا المسببه للتلوث وأجريت ايضا اختبارات الحساسيه لها.

سبعه وثمانون\١٠٠\ (٨٧%) نسبة تلوث الهواتف النقاله بالبكتريا بينما ١٠٠\٩٥\ (٩٥%) نسبة تلوث الأيدي بالبكتريا.

اثنان وعشرون\٢٥\ (٨٨%) استافيلوكوكاس اورياس مقاومه للميثيسلين و٢٥\٢١\ (٤٨%) مقاومه للفاנקومايسين المعزوله من الايدي والهواتف النقاله. كل البكتريا الموجبة الغرام مقاومه للامبيسيلين بنسبة ١٠٠%.

جزئيه كبيره من الهواتف النقاله المستخدمه بواسطة العاملين في المجال الصحي وايديهم وجدت حامله لمختلف الانواع من البكتريا المسببه لعدوي المستشفيات.

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ABBREVIATORS

CCU	Critical care unit
OT	Operation theater
MSA	Mannitol salt agar
KIA	Kliglar iron agar
MAC	MacCkonky
DNAs	Deoxyribonuclease
CR	Contamination rate
Spp	Species
MRSA	Methicillin resistant <i>Staphylococcus aureus</i>
BA	Blood agar
CBA	Chocolate blood agar
HCWs	Health care workers
ICU	Intensive care unite
MDROs	Multidrug resistant organisms
CDC	Centers for disease control and prevention
WHO	World health organization
VISA	Vancomycin intermediate <i>S.aureus</i>
VRSA	Vancomycin resistant <i>S.aureus</i>
ESBL	Extended spectrum betalactamase
VRE	Vancomycin resistant <i>Enterococcus</i>
HAI	Hospital acquired infection