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Title	Drug resistant <i>Staphylococcus aureus</i> in clinical samples at Kampala International University-teaching hospital, Bushenyi District, Uganda.
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Abstract	背景： 耐甲氧西林金黄色葡萄球菌（MRSA）是一种重要的医院感染（院内）病原体，常常引起难以治疗的感染。这是由于该病原体通常对其他常用抗生素也具有耐药性。此前，乌干达不同地区的患者中存在耐药性 MRSA 的情况已有文献记载。然而，关于乌干达西部坎帕拉国际大学教学医院（<i>Kampala International University Teaching Hospital</i>）尚无相关报告。因此，本研究旨在确定外科病房住院患者中 MRSA 菌株的患病率（流行率）及其对抗生素的耐药性。 方法： 采集外科病房住院的男性和女性患者的伤口拭子。随后将样本接种于适当的培养基中进行培养。对获得的金黄色葡萄球菌菌落进行苯唑西林（oxacillin）耐药性检测，以确定属于 MRSA 的菌株。此外，利用多种抗生素通过纸片扩散法（disc diffusion method）测定 MRSA 分离株的抗生素耐药性。 结果： 在来自临床样本的一百一十四个分离株中，只有七十五个分离株被明确鉴定为金黄色葡萄球菌（<i>S. aureus</i>），其中凝固酶阳性占 85.3%，凝固酶阴性占 13.3%。耐甲氧西林金黄色葡萄球菌的流行率为 56.1%。在 MRSA 分离株中，对环丙沙星（ciprofloxacin）的耐药率最高，而对头孢曲松（ceftriaxone）的耐药率最低。 结论： 外科病房患者中 MRSA 的高流行率要求必须采取适当措施以防止该病原体的进一步传播。建议确定这些耐药性 MRSA 菌株的来源，以便设计恰当的干预措施，防止未来出现难以治疗的感染。
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References	1. Appelbaum PC. “MRSA—the tip of the iceberg”. <i>Clin Microbiol Infect.</i> 12(Suppl 2):3–10. 2006

	2. Brown DF, Edwards DI, Hawkey PM, et al, on behalf of the Joint Working Party of the British Society for Antimicrobial Therapy, Hospital Infection Society, Infection Control Nurses Association. “Guidelines for the laboratory diagnosis and susceptibility testing of methicillin- resistant <i>Staphylococcus aureus</i> (MRSA)”. <i>J Antimicrob Chemother</i> 56:1000–18. 2005 3. Francis JS, Doherty MC, Lopatin U, Johnston CP, Sinha G, Ross T et al. “Severe community-onset pneumonia in healthy adults caused by methicillin-resistant <i>Staphylococcus aureus</i> carrying the Panton-Valentine leukocidin genes”. <i>Clin Infect Dis.</i> 40:100–7. 2005 4. Healy CM, Hulten KG, Palazzi DL, Campbell JR, Baker CJ. “Emergence of new strains of methicillin-resistant <i>Staphylococcus aureus</i> in a neonatal intensive care unit”. <i>Clin Infect Dis.</i> 39:1460–6. 2004 5. Saxen S, Singh K. and Talwar V. “Methicillin Resistance <i>Staphylococcus aureus</i> prevalence in Community in East Delhi area”. <i>Jpn J Infect Dis.</i> 56:54-56. 2003 6. Ojulong J, Mwambu TP, Joloba M, Bwanga F, Kaddu-Mulindwa DH. “Relative prevalence of methicillin resistant <i>Staphylococcus aureus</i> and its susceptibility pattern in Mulago Hospital, Kampala, Uganda”. <i>Tanzan J Health Res</i> 11: 149–153. 2009 7. Moremi N, Mshana SE, Kamugisha E, Kataraihya J, Tappe D, et al. “Predominance of methicillin resistant <i>Staphylococcus aureus</i> -ST88
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	and new ST1797 causing wound infection and abscesses”. <i>J Infect Dev Ctries</i> 6: 620–625. 2012 8. Ojikan-Odeke. M.Med. dissertation on “Hand infections in Uganda”. 19-40. 1978 9. Mugisa D.B. M. Med Surgery dissertation on “Complications following laparotomy in Mulago Hospital”. 59-156. 1988 10. Olaro .C. M.Med Surgery dissertation on “Study to assess risk factors for Postoperative Complication following abdominal Surgery in Mulago hospital”. 1-3. 1999 11. Kitara LD, Anywar AD, Acullu D, Odongo-Aginya E, Aloyo J, Fendu M. “Antibiotic susceptibility of Staphylococcus aureus in suppurative lesions in Lacor Hospital, Uganda”. <i>African Health Sciences</i>. 11 (S1): S34 - S39. 2011 12. Shanson DC. “Antibiotic Resistant Staph aureus”. <i>J Hospit infect</i>. 2:11-16. 1981 13. Boyce JM. “Increasing prevalence of MRSA in the USA”. <i>J Infect Control and Hospital Epidemiol</i>. 11:639-642. 1990 14. Kateete D, Kimani C, Katabazi F, Okeng A, Okee M, Nanteza A, Joloba M, Najjuka F. “Identification of Staphylococcus aureus: DNase and Mannitol salt agar improve the efficiency of the tube coagulase test”. <i>Annals of Clinical Microbiology and Antimicrobials</i> 9(1):23. 2010
--	---

	15. Bull AL, Worth LJ, Richards MJ. “Impact of Vancomycin Surgical Antibiotic Prophylaxis on the Development of Methicillin-Sensitive Staphylococcus aureus Surgical Site Infections: Report From Australian Surveillance Data (VICNISS)”. <i>Annals of surgery</i>. 256 (6): 1089-1092. 2012 16. Kateete DP, Namazzi S, Okee M, Okeng A, Baluku H, Musisi NL, et al. “High prevalence of methicillin resistant Staphylococcus aureus in the surgical units of Mulago hospital in Kampala, Uganda”. <i>BMC Research Notes</i>. 4:326. 2011 17. J Ojulong, T Mwambu, M Jolobo, E Agwu, F Bwanga, C Najjuka, D Kaddu-Mulindwa. “Prevalence of Methicillin resistant Staphylococcus aureus (MRSA) among isolates from surgical site infections in Mulago hospital- Kampala, Uganda”. <i>The Internet Journal of Infectious Diseases</i>. Volume 7 Number 2. 2008 18. Jean-Marie Liesse Iyamba, José Mulwahali Wambale, Cyprien Mbundu Lukukula, Ntongo za Balega Takaisi-Kikuni. “High prevalence of methicillin resistant staphylococci strains isolated from surgical site infections in Kinshasa”. <i>Pan African Medical Journal</i>. 18:322. 2014 19. Bashir Mwambi, Jacob Iramiot, Freddie Bwanga, Marthae Nakaye, Herbert Itabangi and Joel Bazira. “Clindamycin Resistance among Staphylococcus Aureus Isolated at Mbarara Regional Referral
--	--

	Hospital, in South Western Uganda”. <i>British Microbiology Research Journal</i> 4(12): 1335-1344. 2014 20. Jeremiah Seni, Christine F Najjuka, David P Kateete, Patson Makobore, Moses L Joloba, Henry Kajumbula, <i>et al.</i> “Antimicrobial resistance in hospitalized surgical patients: a silently emerging public health concern in Uganda”. <i>BMC Research Notes</i> 6:298. 2013 21. Najat Buzaid, Abdel-Naser Elzouki, Ibrahim Taher, Khalifa Sifaw Ghenghesh. “Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA) in a tertiary surgical and trauma hospital in Benghazi, Libya”. <i>J Infect Dev Ctries.</i> 5(10):723-726. 2011 22. Ching Jou Lim, Allen C. Cheng, Jacqueline Kennon, Denis Spelman, Dayna Hale, Gabrielle Melican <i>et al.</i> “Prevalence of multidrug-resistant organisms and risk factors for carriage in long-term care facilities: a nested case-control study”. <i>J Antimicrob Chemother</i> 2014. 23. Meng Xiao, He Wang, Ying Zhao, Lei-Li Mao, Mitchell Brown, Yun-Song Yu <i>et al.</i> “National Surveillance of Methicillin-Resistant <i>Staphylococcus aureus</i> in China Highlights a Still-Evolving Epidemiology with 15 Novel Emerging Multilocus Sequence Types”. <i>Journal of Clinical Microbiology</i> 51 (11): 3638–3644. 2013 24. Alain C. Juayang, Gemma B. de los Reyes, April Joy G. de la Rama, Christine T. Gallega. “Antibiotic Resistance Profiling of <i>Staphylococcus aureus</i> Isolated from Clinical Specimens in a Tertiary
--	---

	Hospital from 2010 to 2012”. <i>Interdisciplinary Perspectives on Infectious Diseases</i> 898457: 4. 2014 25. Obianuju Onelum, Babatunde Odetoyin, Anthony Onipede and Adesola Oyelese. “The Role of Methicillin-Resistant <i>Staphylococcus aureus</i> in Clinical infections in Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, South Western Nigeria”. <i>Journal of Microbiology & Experimentation</i>. 2(2): 00041. 2015 26. Rita Khanal, Prakash Sah, Pramila Lamichhane, Apsana Lamsal, Sweety Upadhaya and Vijay Kumar Pahwa. “Nasal carriage of methicillin resistant <i>Staphylococcus aureus</i> among health care workers at a tertiary care hospital in Western Nepal”. <i>Antimicrobial Resistance and Infection Control</i>. 4:39. 2015 27. Cosgrove SE, Qi Y, Kaye KS, Harbarth S, Karchmer AW, Carmeli Y. “The impact of methicillin resistance in <i>Staphylococcus aureus</i> bacteremia on patient outcomes: mortality, length of stay, and hospital charges”. <i>Infect Control Hosp Epidemiol</i>. 26:166–74. 2005 28. Gastmeier P, Schwab F, Sohr D, Behnke M, Geffers C. “Reproducibility of the surveillance effect to decrease nosocomial infection rates”. <i>Infect Control Hosp Epidemiol</i>. 30:993–9. 2009 29. G. Sganga, C. Tascini, E. Sozio, M. Carlini, P. Chirletti, F. Cortese et al. “Focus on the prophylaxis, epidemiology and therapy of methicillin-resistant <i>Staphylococcus aureus</i> surgical site infections and a position paper on associated risk factors: the perspective of an
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	Italian group of surgeons”. <i>World Journal of Emergency Surgery</i> 11:26. 2016 30. Rubin RJ, Harrington CA, Poon A, Dietrich K, Greene JA, Moiduddin A. “The economic impact of Staphylococcus aureus infection in New York City hospitals”. <i>Emerg Infect Dis.</i> 5:9–17. 1999 31. Pandya N, Chaudhary A, Mehta S, Parmar R. “Characterization of Methicillin Resistant Staphylococcus aureus from various clinical samples at Tertiary care hospital of rural Gujarat”. <i>J Res Med Den Sci.</i> 2(3):49-53. 2014
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