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Introduction Control infections have become more high profile than ever before and have seen the prevention and control during the early years of the twenty-first century. Infection is incontrollable and inevitably devastating, it is a painful fact of life, which is the cause of enormoushealthproblems and the chief cause of death. Infection control is essential in all general care settings in which patients receive health and social care and this will protect the healthcare workers, patients and visitor from hazards and risks.

This research concentrates predominantly on infection control in healthcare settings, including the policy of infection prevention related to health and safety policy in the UK for both hospitals and communities under Hygiene Code of Practice in 2006 and the policies and procedures through the prevention and control, which are related to the guidance of infection under the Health and Social Care Act 2008, in order minimise the prevalence of infection and to protect the health and safety of both healthcare workers and patient (Department of Health, 2006).

In addition, this research contains several issues of risk of spreading infections in healthcareenvironmentand the facilities. Moreover, this research will not disclose or breach any sensitive and confidential information under the Confidentiality Act 2008 (NMC, 2008). Searching the literature A methodical search was conducted using the following systematic which is applicable to the databases, including Medline, CINAHL and PubMed which were searched by using the words “ control infection’ cross-referenced with “ hospital” with 36, 000 data results.

In addition, several databases were used to compare the changes of ratio from 2002 to 2012. However, several results were not included due to lack of evidence and being non-published. In addition, the university library website was used in order to collect adequate information related to infection by setting on engine the words infection control cross-referenced statistic”, which gives the hits of 1300 journals and research articles. The articles were considered eligible if reviewed by a reliable publisher, including Oxford journal and BJI. These journals and research articles were reported as an original research, in hich a researcher examined the relationship between the public and the health care setting and these used to review the previous report to collect the updated data. However, more than 50 data were excluded due to inadequate evidence and lack of information related to infection control. Moreover, the majority research was conducted under eligible originations where successfully collected all the relevant data which related to infection control, including Parliamentary, Department of Health, Health Protection Agency and National Audit Office.

These organisations were used to identify and review the implication between the statistics of infection and health providers, such as the infection control professionals. These databases were developed to standardise the protocols for classification and identification of infection prevalence, which have been widely adopted for researchers throughout the world. In addition, this research used altered books to provide information and evidence in order to support the data that have been undertaken from different publisher.

The Royal Marsden Hospital Manual ClinicalNursingProcedures (2011) and Infection Prevention Control (2007), books contained information regarding the principles of infection control. Main Body Florence Nightingale is perhaps the first nurse on record to acknowledge the importance of infection control and she initiated the infection control protocols through gathering information and demonstrates the reduction of mortality of infection (Perry 2007). Florence Nightingale noted that during the Crimean War more patients were dying from infections than from certain injuries.

However, Quan (2006) stated that, Florence Nightingale did not believe in the presence of microorganism, she found that putting together an ill patient in one area with inadequate space, ventilation and light contributed to the spread of infections. Dougherty & Lister (2011) highlighted that, people who are in hospital or receiving healthcare elsewhere have an increased vulnerability to infection, due to the fact that being in a hospital puts patients in closer proximity to other people with infection conditions. According to the Kings Fund (2012), stated that one of the major concerns of patients and the public are he result of high rates of healthcare-associated infections across the NHS. In addition, healthcare-associated infections are infections that are acquired across hospital and other health care environment, including community and hospital, or due to result of a health care intervention and procedure. According to the Department of Health (2004), it stated that Healthcare Associated Infection (HCAI) is a fatal problem of NHS There are 300, 000 patients every year developing HAIs and it is estimated that during a patient’s duration stay in the UK hospital, around 1 in 10 patients can pick up an infection.

The National Audit Of? ce (2006) estimates that HAIs contributes to the death of around 5, 000 patients each year and costs the NHS up to ? 1 billion per year in the UK. According to the Parliament (2009), it highlights that HAIs, is a consequence of infections, which are acquired from a patient’s treatment by a healthcare worker during the course of their duties. These are often identified in care setting, but can also be associated with medical care delivered in a community.

HAIs begins from micro-organisms which a patient carries safely on skin or body and eventually this will become a problem when the micro-organisms have a prospect to breech the body’s defences as a result, for example, intravenous devices, catheterisation and open wound (Dougherty & Lister, 2011). Furthermore, the Department of Health (2004), has found that infected patients are around 7 times more likely to die in hospital than uninfected patients.

The mortality rate of patients in the UK each year is estimated to be around 5, 000 as a direct result of HAIs, which is one of the causes of another 15, 000 deaths. Parliament (2011) the prevalence of healthcare-associated infections, which was conducted in 2006 in hospitals in England 8. 2% Moreover, according to Doebbeling et al (2012) who conducted a research to identify commonly cited programmes absorbed throughout a wide variety of HAIs projects and hospital settings it has been revealed that in one year of tudies found in hospitals with an infection control team were more likely to reduced the incidence of HAIs by up to 33%. This research proved by Gamage et al (2012) through conducting further studies in all healthcare providers with infection control team in hospital, which eventually reported almost half per cent in the reduction of the prevalence rate of HAIs from 10. 5% to 5. 6%. However, the survey has revealed found that healthcare provider with no infection control programme has been persistently increasing the prevalence rate in HAIs of up to 18%.

On the contrary, the Nursing and Midwifery Council’s Code of Professional Conduct (2002) argues that nurses areaccountabilityto act as an advocate to prevent HAIs. This statement supported by the NMC Code of Professional and Conduct (2004), highlighted that, nurses must act in order to isolate and minimise risk of patients and it should not regularly defendable to infection control team, which also reinforced by the Health and Safety at Work Act 1974 places a duty on healthcare providers to avoid the risk of infections if technically as possible (Jeanes, 2005).

Dougherty & Lister (2004) stressed that, the standard of care, which set by senior staff often misled by healthcare workers, including the policy and procedure of infection control, such the Personal Protective Equipment Regulations Act 1992 (PPE). This is supported by Atkins (2001), that some of the staff did not have enough time to attend mandatory training for infection control, which shows negative impact of unawareness for infection control protocols and procedures, which eventually cause of poor level of care, such as lack of hygiene, which lead to HAIs.

However, Perry (2007) argued that lack of standard of care is often not the cause of HAIs, due to the fact, that before the admission of most patients to hospital have already been acquired infections. This statement supported by NHS (2006), before patients decided to be admitted to hospital, the symptoms of infection have already occurred and in this case the health care provider should not be criticised for the increasing number of HAIs. According to the report of National Audit Office (2008), there are 79% of nfection control programme in NHS Trust, which mostly complied to the measurement of effectiveness of infection control, such as standards setting and audit. However, only 11% was formally approved for the infection control programme that may reduce the programme’s authority within several NHS Trusts. In addition, stated, 66 % is the required data of infection that needs to be collected, unfortunately, due to lack of computer software and hardware, only 27% was calculated the rates of infection.

In this case, 60% of infection control teams considered being unsatisfied with the support of NHS Trust due to inadequate clerical support, which may affect the performance in improving infection control (National Audit Office, 2011). In addition, Kings Fund (2012), the impact of large-scale cuts to the NHS has been widely reported and discussed in which the healthcare providers are concerned with the increasing incidence of HAIs in the UK.

According to a latest survey for GPs and doctors in hospital, which was conducted in 2011, the report found that due to large-scale cuts by the government, the incidence of HAIs will be possibly increase in 2012 and it can have negative impact on healthcare providers . The survey found that, 79% of the 664 health workers, who participated in the survey, stated that it could be more challenging to tackle the prevalence of HAIs, due to a reduction of support of occupational health services and this eventually affects fewer patients getting effective care that is needed to prevent HAIs (National Audit Office, 2011).

According to the Health Protection Agency (2008), highlighted that the department of commission in 2006 conducted the following year survey and found that 75, 694 patients were surveyed within acute care hospitals in the UK and 5, 743 had HAIs, which gives a prevalence rate of 7. 95%. However, in the national survey, which was conducted in 2005, the reports found that the prevalence rate of HAIs was 8%, the statement shows that the prevalence rate of HAIs in 2005 was slightly higher with 0. % compared to 2006 survey (Health Protection Agency, 2005). Ultimately, Parliament (2006) found that the most common site of HAIs were Urinary tract infections with 23. 2%, Lower respiratory tract infections with 22. 9%; Surgical site infections 10. 7%; Bloodstream infections (Bacteraemia) 6. 2%; Skin and soft tissue infections 9. 6%; Other 27. 4%. It clearly shows in the report by Parliament 2006, that the highest rate of HAIs was urinary tract infections with up to 23. %. This report supported by National Healthcare Safety Network (2011) states that urinary tract infection (UTIs) are the most common factor of HAIs and most patients who have acquired urinary tract infection in the hospital approximately 75% are linked with urinary catheter, which is a tube inserted into a bladder through the urethra to drain the urine. The prevalence rate of patients who receive urinary catheters during the duration of stay in hospital is between 15-25%.

Charlett et. al. (2009) stated that, long-term catheterisation is frequently used for older patient and others for management options, where different treatments for bladder dysfunction are unsuitable or ineffective . In the UK, a district nurse’s caseload for the long-term catheterisation has been estimated to be around 4% and the catheterised patients prevalence in nursing homes is approximately 9% and possibly up to 40% in some areas (Health Protection Agency, 2008),

Moreover, Getliffe and Newton (2006) carried a sample of research of small representatives of patients’ records from nursing homes, hospitals and district nurses in which 3 PCTs was undertaken. The survey of CAUTIs resulted in 50% response rate from both the nursing homes and the hospitals 57% and 62. 5 respectively but only 6. 5% from the district nurses, due to problems in distribution of questionnaires to some district nurses. The results found that up to 8. % respondents in the community and hospitals considered that the continuation of urinary catheterisation is used management option for older patient to prevent bladder dysfunction. On the contrary, a recent research which was carried out Badoz et al (2007) found that the studies of 4010 older patients (65 years old) living in both hospitals and the community in 11 European countries and the prevalence reported of indwelling catheter use was 5. % (range 0-23%) and the result found that, the risk of CAUTIs infections was 6. 5 times greater and catheterised patients were more likely to die within a year than those for patients non-catheterised Furthermore, the majority of existing surveillance on CAUTIs has been conducted in acute care settings, where usually the health of the patient is already compromised by co-morbidities, due to a long period of insertion of the urinary catheter.

The study revealed that in primary and community care setting, the prevalence rate of CAUTIs and other healthcare-associated infections are significantly lower (Department of Health, 2003). However, Badoz et al (2007) specified that, catheterisation is linked with evident risks, which is the most common cause of CAUTIs and CAUTIs are commonly documented as a major source of HAIs in the UK and frequency of catheter use makes substantial overall morbidity for patients and a cost to the NHS.

This statement is reinforced by Pellowe (2009), that the recent debate is fuelled due to the fact that patient use catheter is associated with high morbidity of CAUTIs, which accounts for 80% of HAIs. On the other hand, Addison and Foxley (2008) stated that, CAUTIs are frequently seen as the acceptable and tolerable cause of urinary catheterisation carried out for a range of purposes, such as instillation of drugs and intractable incontinence. On the contrary, urinary catheter use is linked with a variety of adverse effects, involving death (Pellowe, 2009).

This supported by Nicolle (2008) stated that, the two most important solutions in order to prevent CAUTIs are not to use a catheter and if a catheter is needed to minimise the period of use, catheter must be inserted only when there are acceptable symptoms and removed as soon as they are no longer indicated and CAUTIs perchance evaded for some male patient through using external condom catheter. The study revealed that this occurred for 28% of catheterised patients.

Furthermore, the majority of existing surveillance was conducted in primary and community care settings; the prevalence rate of CAUTIs is significantly lower (Department of Health, 2003. In recent studies of 4010 older patients (65 years old) living in the community, the prevalence reported of indwelling catheter use was 5. 4% (range 0-23%) and the result found that, the risk of catheter-associated urinary tract infections was 6. 5 times greater and catheterised patients were more likely to die within a year than those for patients with non-catheterised (Getliffe & Newton, 2006).

On the contrary, according to the RCN (2008) found that around 22% of healthcare workers were not aware and uncertain the role of guidelines for the prevention of CAUTIs of several healthcare providers. This is supported by Pellowe (2009) that, the reasons of an increasing prevalence of CAUTIs in hospital and community is due to relatives of patient that is lack of knowledge about infections and those part-time health workers who do not undertake with mandatory training which is mandated by the Health and Social Care Act 2008 that is came into force in April 2009.

The Health Protection Scotland (2009) urinary catheterisation is a routine procedure regularly carried out by qualified nurses, however, several numbers of health workers are not aware of the risk of catheter-associated urinary tract infections which related to the procedure and less likely to meet the necessities in performing catheterisation, due to the fact, that some healthcare workers are skill deficiency and lack of expertise (Bissett, 2005).

This supported by Humphries (2011) that reports have repeatedly shown that several healthcare workers who do not perform hand hygiene before and after performing nursing task is one of the major reasons of the increasing number of CAUTIs. In this case, health workers and patients can leave as many as 1, 000 colony-forming units of Klebsiella species on hands more likely to acquire gram-negative bacilli and staphylococcous aureus, which are reported causes of HAIs (Pellowe, 2004).

On the contrary, Hadaway (2009) stated that, lifting a patient and touching anything in a patient’s room before performing certain nurses tasks, even after performing hand hygiene is unavoidable, due to the fact, that these are the daily routines of a healthcare workers role in order to ensure the health and safety of a patient. National Hand Hygiene NHS Campaign (2007), defines hand hygiene, as “ the entrance door to better infection control and safer patient care”.

Hand hygiene techniques have been implemented for many years into healthcare workers daily routine, the NHS have been evaluated on the proper technique to wash hands after being in close contact with patients or after performing certain treatments with patients. Performing hand hygiene thoroughly will certainly be beneficial for both healthcare workers and patients to prevent risk in HAIs (Wendt, 2004).

According to Pratt et al, (2007), stated that, existing evidence-based strategies determine that in outbreak settings, contaminated hands of both healthcare workers and patient’s visitors are responsible for transmitting infections and that effective hand decontamination can significantly diminish HAIs rates in high-risk areas, such as operating theatre. Furthermore, Pessoa & Silva (2004) highlighted that studies revealed of epidemiological evidence determine that hand-mediated transmission is recognised as the most contributing element the present infection risks to hospital in-patients.

This statement reinforced by Pratt et al, (2007), that hand decontamination before and after contact with patients is essential in order to prevent transmission of germs. In addition, according to the Department of Health (2006), the NHS Code of Practice on the Prevention and Control of Healthcare Associated Infection, which came into force in October 2006, was established to support health care providers in the UK in order to plan and implement policies for HAIs.

These include the criteria by which healthcare providers and managers of NHS ensure patients must perform hand hygiene for clean environment in order to keep the risk of HAIs as low as possible. According to Pittet (2002), the importance of adherence to the guidance of hand hygiene will certainly provide an outline of the effects and aspects that impact on the hand hygiene compliance, which emphasised the national and international guidelines.

Furthermore, the issue regarding hand hygiene was addressed in excellence principles for hospital cleanliness, which has developed by the Infection Control Nurses Association and the Association of Domestic Mangers (NHS, 2004). According to Wendt, C. et al (2004) stated that patients are more likely to put at risk and increase the chance for developing HAIs once informal healthcare workers in contact with patient are not performing hand hygiene properly.

It is essential that hands must be decontaminated before every period of care, which includes direct interaction with patients’foodor skin and in order to minimize cross contamination of the healthcare environment (Boyce and Pittet, 2002). However, healthcare workers should not always be responsible for the increasing numbers in spreading HAIs, due to the number of patients admitted in the hospital who have already acquired infections and healthcare workers have no time to assess the patient, due to short staffing (McGuckin, 2004).

This is supported by the RCN, Chief Executive & General Secretary Dr Peter Carter, stated that the outcome of cutting staff numbers by up to a quarter and terminating almost third of nursing jobs will certainly have a deep and possibly dangerous impact on patient health and safety (RCN, 2011). Moreover, El-Masri and Oldfield (2012) stated that healthcare workers are aware of the policy and procedure of hand hygiene and it should be performed before and after contact with patients and the truth of the matter, is nurses and doctors have more behaviour problem than a knowledge problem.

Furthermore, Erasmus et al (2010) conducted a research of hand hygiene behaviour to explore the practicality and effects of hand hygiene behaviour of nurses, research design 17 nurses which is equivalent to 25% were invited to participate. The nurses had been observed for 3 weeks intervention for hand hygiene behaviour and the result found only 10% of 25% of nurses had performed hand hygiene, which is far too low.

This research supported by Creedon (2008) explores healthcare workers’ compliance with behaviour hand hygiene in four acute care hospitals in Ireland and the result revealed that the highest non-compliance by behaviour is the Doctors and medical students at 41% of indications, which was followed by nurses and student nurses at 28%. However, healthcare workers are aware of recommendations concerning hand hygiene, buteducationand knowledge do not in themselves motivate HHB (McGuckin et al, 2004).

In recent years, hand washing with water and soap had been considered as the right amount of personal hygiene; however, the evidence concerning the hand washing and the spread of illness has only been proven in the last 20years (Kumperus, 2010). According to Ignaz Semmelweis and Oliver Wendell Holmes the mid-1800s, found that HAIs, is known to be caused by infectious agents, which are transmitted through hands (Cole, 2007).

It was acknowledged healthcare providers the important measure of hand hygiene, which can significantly lower the danger of disease, in particular among vulnerable children in the UK (Trick, 2008). On the contrary, frequency hand hygiene can increase skin dehydration and replace the altered or depleted skin lipids that contribute to the barrier function of normal skin Several studies found that more than 30 times of regular hand hygiene can cause skin damage and irritation (Jenner et al, 2006).

Moreover, according to Giuliano et al (2012) stated that alcohol gel hand rubs are more effective to prevent the transmission of potential pathogens from health worker’s hands to patients than hand washing with plain or anti-microbial soap. This statement argued by McGuckin et al (2004) that hand rubs gel is only used as a hand cleaner in some circumstances but washing hand with ati-microbial soap and water is important, especially if your hands are visibly contaminated with blood or body fluids and hand washing techniques will certainly have certainly reduced the contamination rates significantly.

Conclusion Healthcare-associated infection remains a problem for the community, hospitals and other healthcare providers. The factors, which have continue to drive, the concerning growth in HAIs are numerous but well known. Particularly with patients, which heightens their susceptibility and vulnerability to HCAIs through weakened immunity. In addition, the cost of healthcare-associated infections in the UK is high which is around ? 1 billion per year.

The involvement of healthcare workers in assessing the cost of infection and prevention control programmes will certainly reduce the increasing number of HCAs, which can be benefited in NHS and major savings can be achieved. In addition, the healthcare workers must have clear understanding of the latest infection and prevention control recommendations, which healthcare worker’s advocacy and participation in team efforts can play a vigorous role in preventing the increasing number of HCAIs in patients.

The routine data collection of the CAUTIs should be more standardised to determine the scale of the risk associated with CAUTIs, in oder to develop the longitudinal database of catheterised patients and to provide essential data which infection control initiatives in hospital and community care can be evaluated and major obstacles will certainly strengthen epidemiological analysis of impact and risk of CAUTIs. The healthcare workers should have adhered to and shown more positive intentions to comply with hand hygiene guidelines and procedures.

Healthcare workers should need to be educated regarding the awareness of skin damage and the value of regular, frequent use of hand hygiene. Hospital trusts and community care should have had procedures and delivered board with agreement that infection and prevention control is theresponsibilityof all healthcare workers and should have complied with the Code of Practice and should followed with good infection control practice for performance objectives. References Addison, R. , Foxley, S. , 2008. Role in Urinary Catheter Management. London: Blackwell Publishing ltd. Atkins, C. , Greenwood, N. Habibi, R. , Mackenzie, A. , 2011. General practitioners, primary care and support for carers in England. Oxford: Blackwell Publishing Ltd Badoz M. , Berntrand X. , Crouzet, J. , Husson, D. , 2007 Control of the duration of urinary catheterization: impact on catheter-associated urinary tract infection, Journal of Hospital Infection, 67(3), pp. 253-275. Bissett, L. , 2005. Reducing the risk of catheter urinary tract infection. Nursing Times. 22 March 101(12) p. 64 Boyce. M. , Pittet, D. , 2002. Research: The impact of wearing gloves on adherence to hand hygience policy. Nursing Times, 103(38), pp 46–48.

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