

Knowledge of the possibilities of post - exposure prophylaxis for HIV infection

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ABSTRACT

Aim To investigate knowledge of nurses, laboratory technicians and nursing students about possibilities of post-expositional prophylaxis after occupational exposure to HIV infection, as well as an impact of the knowledge obtained during education and professional career in relation to this problem.

Methods The study was conducted using an anonymous questionnaire among 232 respondents. Respondents were nurses and laboratory technicians, employed at the Clinical Centre of Vojvodina, and nursing students of the School of Medicine of Novi Sad. For the data analysis χ^2 test was used, and $p < 0.05$ was used as statistically significant.

Results Nursing students, nurses from infectology and general internal departments, and laboratory technicians were very well aware of potential risks of occupational exposure to HIV infections, while nurses within the surgical departments had undergone a very small percentage of any training in this field.

Conclusion Knowledge of this issue is still not satisfactory enough among the nurses and laboratory technicians. As this research showed, it is most important to ensure the education of nurses within the surgical department, and continuous education regarding this issue.

Key words: continuing nursing education, needlestick injuries, occupational exposure.

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INTRODUCTION

Among 35 million health care workers worldwide, every year 3 million get needlestick injury or injury by sharp objects, respectively 1 of 10 health care workers (1, 2). It is considered that average risk for HIV transmission, in case of occupational exposure is 0.09 – 0.3% according the WHO (World Health Organization) data (3). The risk increases in case of percutaneous sharp object injury contaminated by blood of infected person, deep needlestick injury or direct contact between infected needle and arterial or venous blood vessel (3). The biggest risk is stab on pointed instrument with lumen (needle, trocar or similar), while superficial injury with no - lumen instrument and no exposure to mucosa carries lower risk (4).

PEP (Post-exposure prophylaxis) represents a protocol with a series of recommendations given by WHO and CDC (Centers for Disease Control and Prevention) to prevent the possibility of potential HIV infection after exposure to potentially infectious material (5). Post-exposure prophylaxis must begin as soon as possible, preferably within 2 hours and no later than 24-48h after the accident (5). Initiating PEP 72h after the accident seems unreasonable, because HIV virus goes to regional lymph nodes 48h after the contact with receptor – presenting cells. Today, there is no definitive consensus about a deadline for beginning with PEP. Mandatory PEP protocol comprises six steps: treatment of the site of exposure, report and documentation, evaluation of exposure, evaluation of sources, specific prophylaxis and control monitoring. PEP should be continued for four weeks (4).

There are centers for health care education and training worldwide. AIDS Education and Training Centers (AETC) in the USA are among them (6). Centers conduct targeted, multidisciplinary, quality education and training programs for health care providers so they can improve and advance health care for HIV patients (6). There are no such centers in Serbia, so the education is conducted through continuing education. According to the law regulations of the Health Care of the Republic of Serbia health workers and associates have the right and duty to always follow the development of medical, dental, pharmaceutical and other appropriate sciences, and to improve professionally in order to maintain

and improve the quality of their work (7). The professional development includes specialization and sub – specialization, and continuing education. The law also provides that continuing education includes participation at professional meetings and participation in seminars, courses, and other continuing education programs. This kind of education is a condition for obtaining and renewing licenses (7).

Continuing education programs are the first way to improve knowledge of nurses about HIV and AIDS, but also the basic knowledge of PEP and its implementation.

The aim of this study was to investigate the knowledge of nurses, laboratory technicians and nursing students about the possibilities of applying PEP after professional exposure to HIV infection, as well as how education during work and schooling impacts knowledge about this problem.

EXAMINEES AND METHODS

The research was conducted among nurses, laboratory technicians working in the Clinical Centre of Vojvodina, and nursing students of the School of Medicine of Novi Sad in the period from September 1st to December 30th 2011.

Nurses are employed at the Clinic for Infectious Diseases (n=37), surgical clinic (n=50), general – internal clinic (n=50), and Center for Laboratory Medicine (n=45). Students who participated (n=50) had already finished the course of Infectious disease and care of contagious patients. The survey encompassed 232 participants. According to the working place, participations were divided into 4 groups: nurses from the Clinic for Infectious Diseases, nurses from surgical clinics, nurses from general clinics, laboratory technicians, while students were in the separate group.

Specially structured and anonymous questionnaire was designed to collect data from participations. First part of the questionnaire obtained profession, work place, gender, and year of work/studying. The second part of the questionnaire included the following questions: do the examiners know what they should do if they get stabbed/ get hurt by a needle/ instrument that was in contact with HIV+ patient; knowledge of the participants of the ways how to avoid infection after they get stabbed/ get hurt by a needle/ instrument that was in contact with HIV+ patient; whether they have

had an accident (got hurt by a needle/ instrument) while working with HIV+ patient; knowledge of respondents who should they report an accident; knowledge of the place in Novi Sad where HIV+ patients are treated; knowledge about the existence of drugs to treat HIV; have they ever had education about PEP and when, and also the existence of the procedure in case of accident in a medical institution, a designated place in the institution where they work or in the department where they had clinical practice.

The obtained data were statistically processed using standard statistical methods, χ^2 test. Values of $p < 0.05$ were considered as statistically significant.

RESULTS

The survey encompassed 232 participants, 40 (17.24%) were males, and 192 (82.76%) were females. The average years of work experience were 13.99 years (Table 1). Students who participated were at third year of studying (\bar{X} = 3.28 years).

Positive answers to the question related to what they should do if they got stabbed/ hurt by a needle/ instrument that was in contact with HIV+ patient, were given by all nurses from the General Clinic (100%) and all students. The same answer was given by 36 (97.3%) nurses from the Clinic for Infectious Diseases, 47 (94%) nurses from the Surgical Clinic, and 41 (91.11%) laboratory technicians.

Affirmative answers to the question concerning ways how to prevent infection after they get stabbed/ hurt by a needle/ instrument that was in contact with HIV+ patient (basic - knowledge of PEP as preventive measure) were given by most respondents. Negative answer to this question was given by 20 (40%) nurses from the

surgical clinics and 12 (26.67%) lab technicians (Table 2). Statistically significant difference was registered between the nurses from the Clinic for Infectious Diseases and nurses from the Surgical Clinic ($p = 0.017$), nurses from surgical clinic and nurses from general clinic ($p = 0.008$), nurses from surgical clinics and nursing students ($p = 0.0002$), laboratory technicians and nursing students ($p = 0.015$).

Accidents (getting hurt by a needle/ instrument) while working with HIV+ patient occurred in 4 (8%) nurses from the general clinics and 2 (4%) nurses from the surgical clinics. Other examiners denied that they had had an accident of this type. The question, „Do you know who you should report an accident (getting hurt by a needle/ instrument) while working with HIV+ patient?” all nurses from the Clinic for Infectious Diseases, 37 (100%), and nurses from general clinics, 50 (100%) gave affirmative answers. The same answer was given by 46 (92%) students, 41 (91.11%) laboratory technicians and 40 (80%) nurses from the surgical clinics ($p = 0.0013$) (Table 2). An accident (getting hurt by a needle/ instrument) while working with HIV+ patient respondents would be reported to a doctor, head nurse, Institute of Public Health of Vojvodina (IPHV), Clinic for Infectious Disease, or local coordinator. The answer was not given by four (10.81%) nurses from the Clinic for Infectious Diseases, one (2.55%) nurse from the surgical clinic and two (4%) nurses from general clinics. The question was open-ended so the answers were subsequently grouped (Figure 1). The answer „Yes” to the question regarding knowledge of place in Novi Sad where HIV+ patients are treated was given by 37 (100%) nurses from the Clinic for Infectious Diseases and 50 (100%) nursing students. The same answer was given by nurses from the general clinics, 47 (94%), nurses from the surgical clinics and lab technicians 36 (80%). The answer „No” was given by 20% of nurses from surgical clinics (10), laboratory technicians (9), and three (6%) nurses from the general clinic ($p = 0.0002$). All Nurses from Clinic for Infectious Diseases (37) and nursing students (50) (100%) gave affirmative answers regarding the existence of drugs to treat HIV. The same affirmative answer was given by 30 (86.87%) lab technicians, 42 (84%) nurses from general clinics and 28 (56%) nurses from surgery clinics ($p < 0.0001$). Most nurses from the Clinic for Infectious Diseases, 35 (94.59%) and nursing

Table 1. Demographic information about respondents

Examined groups	No (%) of respondents		Work experience (\bar{X})
	Males	Females	
NCID	8 (21.62)	29 (78.38)	16.05
NSC	9 (18)	41 (82)	11.8
NGC	4 (8)	46 (92)	13.5
LT	9 (20)	36 (80)	14.62
SN	10 (20)	40 (80)	/
Total	40 (17.24)	192 (82.76)	13.99

NCID, nurses from the Clinic for Infectious Diseases; NSC, nurses from surgical clinics; NGC, nurses from general clinics; LT, laboratory technicians; SN, nursing students; (\bar{X}), arithmetic mean

Table 2. Knowledge of respondent about post-exposure prophylaxis

	No (%) of respondents in the groups									
	NCID		NSC		NGC		LT		NS	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Do you know what you should do if you were stabbed or hurt by a needle or instrument that was in contact with HIV+ patient?	36 (97.3)	1 (2.7)	47 (94)	3 (6)	50 (100)	0 (0)	41 (91.11)	4 (8.89)	50 (100)	0
Is there any possibility of avoiding to get infections if you were stabbed or hurt by a needle or instrument that was in contact with HIV+ patient?	31 (83.78)	6 (16.22)	30 (60)	20 (40)	42 (84)	8 (16)	33 (73.33)	12 (26.67)	46 (92)	4 (8)
Have you ever had an accident (stabbed/hurt by a needle/instrument) while working with an HIV+ patient?	0 (0)	37 (100)	2 (4)	46 (96)	4 (8)	46 (92)	0 (0)	45 (100)	0 (0)	50 (100)
Do you know whom should you report accident? (stabbed/hurt on the needle/instrument) while working with a HIV+ patient?	37 (100)	0 (0)	40 (80)	10 (20)	50 (100)	0 (0)	41 (91.11)	41 (8.89)	46 (92)	4 (8)
Do you know a place where HIV+ patients are treated in Novi Sad?	37 (100)	0 (0)	40 (80)	10 (20)	47 (94)	3 (6)	36 (80)	9 (20)	50 (100)	0
Do you know about existence of drugs to treat HIV?	50 (100)	0 (0)	28 (56)	22 (44)	42 (84)	8 (16)	30 (86.87)	6 (13.13)	50 (100)	0
Did you have education about PEP for HIV infection?	35 (94.59)	2 (5.41)	12 (24)	38 (76)	9 (18)	41 (82)	20 (44.44)	25 (56.56)	45 (90)	5 (10)
Do you have procedures in case of accident in a medical institution posted on a visible place in the institution where you work or in department where you had clinical practice?	35 (94.59)	2 (5.41)	12 (24)	38 (76)	20 (40)	30 (60)	40 (88.89)	5 (11.11)	7 (14)	43 (86)

NCID, nurses from Clinic Infectious Diseases; NSC, nurses from Surgical Clinics; NGC, nurses from general clinics; LT, laboratory technicians; NS, nursing student

students, 45 (90%) declared that they had had education about PEP and only 20 (44.44%) lab technicians had had it. A small percent of nurses from surgical 12 (24%), and internal clinics had had education ($p < 0.0001$).

In the past two years education about PEP was attended by 25 (71.43%) nurses from the Clinic for Infectious Diseases, four (33.33%) nurses from the surgical clinics, 4 (44.45%) nurses from general clinics and 18 (90%) laboratory technicians. The answer „several times during the work” was written by two (22.86%) nurses from the Clinic for Infectious Diseases and one (5%) laboratory technician. All nursing students, 50 (100%), who had affirmative answers to the previous question, wrote that they had had education during schooling. The same answer was given by three (25%) nurses from

surgical clinics and 2 (22.22%) nurses from general clinics. The answer „I do not remember” was given by two (16.67%) nurses from sur-

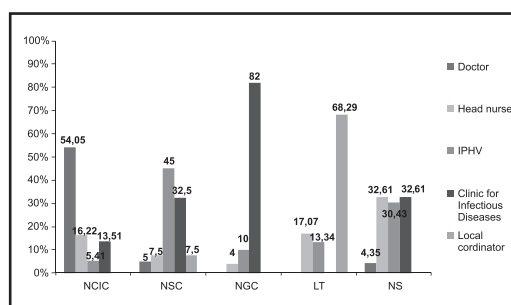


Figure 1. Institution/person to whom respondents would report an accident

NCID, nurses from the Clinic for Infectious Diseases; NSC, nurses from Surgical Clinics; NGC, nurses from general clinics; LT, laboratory technicians; NS, nursing students; IPHV, Institute of Public Health of Vojvodina

gical clinics, except eight (5.71%) nurses from the Clinic for Infectious Diseases, three (25%) nurses from surgical clinics, three (33%) nurses from general clinics and one (5%) laboratory technician. This question was open – ended and respondents wrote the answer by themselves, which were later grouped.

Nurses from the Clinic for Infectious Diseases, 35 (94.59%) of them, 40 (88.89%) laboratory technicians, 20 (40%) nurses from general clinics, 12 (24%) nurses from surgical clinics and 7 (14%) nursing students claimed that in departments where they worked or had clinical practice, there was a „procedure in case of an accident in a medical institution” on a visible place ($p < 0.0001$).

DISCUSSION

Occupational exposure to HIV, although preventable, is still a part of the daily exposure of health care workers. Nurses and lab technicians are 69% of professionally acquired HIV transmission and 13% are doctors, according to the global statistics (8). According to a survey conducted in Gujarat (India), the majority (54.68%) of exposed health care professionals were nurses and residents on the internship, followed by lab technicians and nursing students (26.26%). The same survey also pointed to the need to increase knowledge on different aspects of professional PEP among health care workers, especially among those who deliver care and have a common approach to vein catheters (nurses and nursing students), doctors on internship and lab technicians (9). In a survey conducted in Africa, needlestick injury, lack of education in this area, more than 40 work hours a week, often recap of needle, and failure to use gloves while working with needles were identified as risk factors (10).

The majority of respondents in this study (91 – 100%) thought that they knew what should be done if they got stabbed/ hurt by a needle/instrument that had been in contact with HIV+ patient, concerned only of basic knowledge of PEP as a preventive measure. According to a survey conducted in Gujarat (India), most of the health care workers would wash the place of exposure (66.9%) with clean water or with water and soap, while some health care workers who would use alcohol or antiseptic (14.7%), and rest of them who would „try to squeeze blood out of the injury” (7.9%) (9). In a survey conducted in Serbia

among health care workers, 90% believed that necessary rub disinfectant at the injury should be applied immediately (14).

Nurses from the Clinic for Infectious Diseases and nurses from general clinics from this survey in 83.78% and 84%, respectively, believed that they got the infection after they got stabbed/ hurt by a needle/instrument that was in contact with HIV+ patient. Nursing students have shown a remarkable level of knowledge with 92% of affirmative answers. All these results indicate that nurses from infectious and general departments as well as laboratory technicians are very familiar with the potential risk of occupational exposure to HIV infection, and that nurses from surgical clinics are the least familiar with this issue. The best knowledge about this issue has been shown by nursing students, which is not surprising due to the fact that they received adequate information during their previous education. Dixit et al. study suggested that after the education on the implementation of universal protection measures, the knowledge about the risks of HIV transmission after a needle injury and splashing of body fluids was increased by 72% (15). According to Rampal et al. study, majority of nurses who reported a needle-related injury worked in general department, but there is no data on the HIV status of the patients with whom nurses had worked at the moment of injury, in the aforementioned study (16). Among the respondents in our survey, 8% of nurses from the general clinics and 4% of the surgical clinics had an accident (injury by a needle/ instrument) during the work with HIV+ patients.

Most of our respondents thought they know whom should they report an accident. The answers varied according to a place of employment, i.e. according to the groups. These responses correspond to the second step of PEP protocol, i.e. application and documentation of occupational exposure. According to the study conducted in 2010 by the Ministry of Health of the Republic of Serbia and International Aid Network (IAN), 77.76% of health workers would report to epidemiological service in case they had been in contact with patient's blood, while rest of them would not (14). Blackwell et al, found that 4.2% of nursing students reported needle injuries (17).

The treatment of HIV infection is decentralized and implemented by the Institute for Infectious and Tropical Diseases at the Clinical Center of Serbia in Belgrade, Clinical Centre

of Vojvodina in Novi Sad, and Clinical Center in Niš since 2008 and at the Clinical Center in Kragujevac since 2009 (18). Patients with HIV+ status are treated in Novi Sad, in Clinical Center of Vojvodina, Department for HIV and AIDS, which was answered correctly by the most of the respondents. However, according to our research, the largest number of nurses from surgical clinics (20%) did not know where HIV+ patients are treated in Novi Sad. HIV therapy has been developed for the past 25 years and so far there have been about 30 known drugs to treat HIV (5). According to the results, almost half of the nurses from the surgical clinics know about the existence of drugs to treat HIV. It can be explained by inadequate education of nurses from surgical clinics about this topic.

There is scarce available literature data about education of different profiles of nurses and nursing students related to PEP. Studies that had been conducted were mainly related to education about HIV/AIDS (15). According to the survey conducted in 2010 by the Ministry of Health and International Aid Network, 50.9% of health professionals (doctors and nurses), never had education related to HIV, which is disturbing (14). Mihajlović et al. showed that 81.5% of the respondents did not have education in the field of HIV/AIDS, 83.8% considered that they needed additional training, and 55.4% thought it would be useful (11). The fact that 90% of nursing students in this survey had education about PEP is not surprising because they had it during their regular education in school within the course of Infectious Diseases and Care for Contagious Patients. Most nurses from the Clinic for Infectious Diseases had trainings about PEP, which is a logical consequence of the place of employment. Almost half of the nurses from the Center for Laboratory Medicine have had training, including a quarter of nurses from surgical clinics and a fifth from general clinics, which matches the results of previous studies (11,14).

Also, there are very few available literature data about the education time. In the last 5 years education about HIV/AIDS, among health care workers was attended by 40.8% of respondents, and 7.1% during the last year (14). In our survey, this question was open-ended, so the respondents wrote responses by themselves, which had been selected for different groups using statistical analysis. Nurses from the Clinic for Infectious Diseases had been educa-

ted during last two years and more than once during their work, which may be due to necessary knowledge because of the nature of their work place. For the same reason, it is considered that most laboratory technicians have had education during last two years and one of them had it several times during the work. The results of this study indicate that the lecturers on the course of Infectious Disease and Care for Contagious Patients follow the world trends related to the importance of prevention among health care workers while working with HIV+ patients, because they had education between for one to five years. This statement is confirmed by 92% of the respondents.

In the study of Andjelkovic et al of 2010 50.9% of health workers did not have available written instructions while working with infectious material and did not have available means of protecting (14).

According to our results 94.59% of nurses at the Clinic for Infectious Diseases and 88.9% laboratory technicians had a procedure displayed at a visible place in their department. On the other hand, a small percentage of internal and surgical clinics have such instructions on visible places, which is confirmed by affirmative answers. Only 14% of students noted this instruction during practice on clinics, which can be a consequence of short stay in intervention rooms where the instructions are posted.

Despite the availability of PEP, knowledge about this topic is still not at satisfactory level among nurses and laboratory technicians. Education about HIV infection among all health care workers, especially nurses, would reduce ignorance and fear about HIV, and it would ensure better use of PEP. As demonstrated by this survey, the most urgent is to provide education for nurses from surgical, internal clinics and lab technicians. Increasing their knowledge would not only reduce unnecessary fear and discrimination of patients, but also positively affirm the universal measure of safety at work, which provides for personal and professional safety at work. Well-planned continuous education is a good solution for this problem. Education should not be left to individuals but should be a commitment by health care facilities and the entire health care system.

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REFERENCES

1. World Health Organization. The world health report: 2002. Reducing risks, promoting healthy life. Geneva: World Health Organization; 2002. <http://www.who.int/whr/2002/en/> (12 May 2012)
2. Pruss-Ustun A, Rapiti E, Hutin Y. Estimation of the global burden of disease attributable to contaminated sharps injuries among health-care workers. *Am J Ind Med* 2005; 48:482-90.
3. Elder A, Paterson C. Sharps injuries in UK health care: a review of injury rates, viral transmission and potential efficacy of safety devices. *Occup Med (Lond)* 2006; 566-74.
4. Vasic B, Andjelic S, Lukic R, Jevtovic Dj, Grbovic L, Vasiljevic T, Dragovic G. Postexposure prophylaxis against hepatitis B, hepatitis C and human immunodeficiency virus infection in healthcare workers. *Vojnosanit Pregl* 2011; 68: 975-8.
5. Hoffmann C, Rockstroh J, eds. HIV 2011. Berlin: Medizin Fokus Verlag, 2011.
6. The AIDS Education & Training Centers National Resource Center. <http://www.aids-ed.org/> (1 Jun 2012)
7. Law on Health Care of the Republic of Serbia. Sl. glasnik RS. br 107/2005, article 182., article 187 <http://www.rfzo.rs> (10 June 2012)
8. Health protection Agency for Infections& Collaborators: Occupational transmission of HIV - Summary of Published Reports. London: Health protection Agency for Infections & Collaborators; 2005. http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1194947320156(14 May 2012)
9. Shevkani M, Kavina B, Kumar P, Purohit H, Nihalani U, Shah A. An overview of post exposure prophylaxis for HIV in health care personals: Gujarat scenario. *Indian J Sex Transm Dis* 2011; 32: 9-13.
10. Nsubuga FM, Jaakkola MS. Needle stick injuries among nurses in sub-Saharan Africa. *Trop Med Int Health* 2005; 10:773-78.
11. Mihajlovic I, Kocic B, Cagulovic T. Estimation of knowledge of primary health care medical workers related to HIV infection in municipality of Razanj. *Acta Medica Medianae* 2009; 48:32-9.
12. Aisien A, Shobowale M. Health care workers knowledge on HIV and AIDS: universal precautions and attitude towards PLWHA in Benin-City, Nigeria. *Niger J Clin Pract* 2005; 8:74-82.
13. Reis C, Heisler M, Amowitz L, Moreland R, Mafeni J, Anyamele C, Iacopino V. Discriminatory attitudes and practices by health workers toward patients with HIV/AIDS in Nigeria. *PLoS Med* 2005; 2:246.
14. Andjelkovic V, Opacic G, Petrovic N, Krtinac G, Jevtovic Dj, Despotovic M. Perception of knowledge, attitudes and behaviours of health professionals related to HIV in 2010. Belgrade: Ministry of Health of the Republic of Serbia, 2010. <http://www.ian.org.rs/sida/publikacije/izvestaj%20sept%202010.pdf> (10 Jun 2012)
15. Dixit S, Khatri A, Taneja G, Saroshe S, Baghel S, Jaiswal S, Soni S, Sengar S. Impact of Educational Intervention Measures on Knowledge regarding HIV/ Occupational Exposure and Post Exposure Prophylaxis among Final Year Nursing Students of a Tertiary Care Hospital in Central India. *Online J Health Allied Scs* 2009; 8:6.
16. Rampal L, Zakaria R, Sook LW, Zain A. Needle Stick and Sharps Injuries and Factors Associated Among Health Care Workers in a Malaysian Hospital. *Eur J Soc Sci.* 2010; 13:354-62.
17. Blackwell L, Bolding J, Cheely E, Coyle E, McLester J, McNeely E, Odom L, Owens H, Porter B, Dawn K, Smith, Suite P, Swofford A, Lawson T. Nursing students' experiences with needle stick injuries. *IJUNS* 2007; 9:20-6.
18. Institute of Public Health of Serbia „Dr Milan Jovanović – Batut“. The current epidemiological situation with regard to HIV infection in the Republic of Serbia, and support for people who live with HIV in the end 2011. Beograd: Institute of Public Health of Serbia; 2011 <http://www.batut.org.rs> (5 June 2012)

Poznavanje mogućnosti postekspozicione profilakse infekcije HIV-om

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SAŽETAK

Cilj Ispitati poznavanje medicinskih sestara/tehničara, laboratorijskih tehničara i studenata zdravstvene nege o mogućnostima primene postekspozicione profilakse kod profesionalne izloženosti infekciji HIV-om, te uticaj edukacije u toku rada i školovanja na poznavanje ove problematike.

Metode Istraživanje je sprovedeno anketnim upitnikom među 232 ispitanika. Anketirane su medicinske sestre/tehničari i laboratorijski tehničari zaposleni u Kliničkom centru Vojvodine, te studenti zdravstvene nege Medicinskog fakulteta u Novom Sadu.

Rezultati Studenti zdravstvene nege, medicinske sestre/tehničari iz infektivnih i internističkih klinika, te laboratorijski tehničari, pokazali su statistički značajno veće poznavanje potencijalnih rizika od profesionalne eksponiranosti infekciji HIV-om u odnosu na medicinske sestre/tehničare iz hirurških klinika, koji su u malom procentu imali edukaciju iz ove oblasti.

Zaključak Poznavanje ove problematike još uvek nije na zadovoljavajućem nivou među medicinskim sestrama/tehničarima i laboratorijskim tehničarima. Rezultati istraživanja pokazali su kako je najvažnije obezbediti edukaciju medicinskih sestara/tehničara iz hirurških klinika i kontinuiranu edukaciju tokom rada u vezi ove problematike.

Ključne reči: kontinuirana edukacija medicinskih sestara, povrede na iglu, profesionalna izloženost.