



Assessment of compliance with regulation 100 on integrated epidemiological surveillance of IRAS by health professionals from the Dr. Alejandro Dávila Bolaños Masaya-Nicaragua health center, april to september 2022

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ABSTRACT

To analyze compliance with regulation 100 on the integrated epidemiological surveillance of IRAS, establishing the internal and external characteristics of the institution by health professionals from the Dr. Alejandro Davila Bolaños Health Center in the city of Masaya Nicaragua, April to September 2022. **Methodological design:** It is a study with a qualitative research-action-participation approach, in the integrated epidemiological surveillance of acute respiratory infections. Universe and sample: 66 health unit workers in charge of providing care to people with acute respiratory infections. **Results:** Strengths were determined in the health unit, such as a broad portfolio of services and solid inter-institutional coordination, managing to maintain the focus on promotion and prevention.

Optimizing the monthly scheduling of medical supplies; identifying weaknesses on the part of health personnel in the use of personal protective equipment and the safe transport of infectious substances, objectively visualizing and addressing the monitoring actions of the health unit's management team, allowing the creation of continuing education strategies and administration of medical supplies. **Conclusions:** The visualization of the findings found in the evaluation of regulation 100 in the integrated surveillance of HAIs allowed the personnel under study and the institution to establish the daily report of respiratory symptoms, the training of the regulations was developed; emphasizing the flow of care, protective equipment, transportation of infectious substances and waste segregation.

INTRODUCTION

The Public Health Surveillance System requires a permanent strengthening of the epidemiological surveillance network, to detect, investigate, and monitor emerging pathogens and the factors that influence their emergence. Currently, the family and community health model is being used in Nicaragua, with emphasis on the promotion and prevention of the health of the Nicaraguan population.

The professional development of health workers is of great importance, and they must be systematically trained in medical care processes, based on data collection, conjecture, and problem-solving.

The implementation, application, and enforcement of standards for the epidemiological surveillance of acute respiratory infections in health care units in Nicaragua contributes to improving the quality of care and reducing the costs of treatment in the population. Considering that it is of great relevance to carry out this study in the Municipality of Masaya, because it is a commercial and tourist area, with a high circulation of Nicaraguan and foreign citizens, to take promotion and prevention actions in the face of possible outbreaks or epidemics of acute respiratory infections.

The purpose of this study was to verify compliance with the regulations, present the results of the study to the research team, establish information analysis techniques as a team, and create work plans that guarantee quality care.

METHOD:

Research Focus: Qualitative research with an emphasis on classification, description, and explanation of facts.

Type of study: Research-action-participation. With the institutional and methodological assembly of the research, situational analysis, prioritization of problems with the search for

alternative solutions for the planning and execution of action plan in the decision-making of health personnel in the integrated surveillance of acute respiratory infections of the Dr. Alejandro Dávila Bolaños Health Center.

Universe and sample: Sixty-six workers from the health unit in charge of providing care to people with acute respiratory infections who come to the Dr. Alejandro Dávila Bolaños Health Center.

Unit of Analysis: The health personnel involved in the care of patients with respiratory diseases in the evaluation of compliance with the 100 regulations.

Instrument and Procedure for Collecting Information: In the study by the researcher through observational techniques, classification, description, and explanation of the facts were carried out with institutional and methodological assembly of the research, situational analysis, prioritization of problems with the search for alternative solutions for the execution of the action plan.

Detailed observation of the behavior of health personnel at the time of patient care, filling out the form for the surveillance of IRA G-ETI, taking a nasopharyngeal swab sample; the use of protective equipment by health personnel, compliance with the criteria for sample collection and transport of infectious substances, and a detailed description of the event and its interaction with the patient was made.

Interviews were conducted with the health personnel through the focus group technique, these two sessions were held with the team subject to research; where they had the space to give their opinion and assess the internal situation of the health center, finding the weaknesses and strengths of the institution; in addition to the external situation, describing the threats and opportunities of the health center, determining the competitive advantages of the health unit in the application of regulation 100 on the integrated epidemiological surveillance of acute respiratory infections. For this type of information, the informed consent of the health personnel under study was requested. Ethical principles were taken into account, such as autonomy, which represents the right of every person to choose his or her destiny as long as it does not affect others, and the principle of justice, which includes the rational use of available resources that allow the full exercise of the right to health.

RESULTS.

On the part of the researcher, the selection of the participants was carried out, complying with the inclusion and exclusion criteria within the study, the process of compiling the information was complied with, where the socio-labor data were detailed, the source of

obtaining the information, the level of basic knowledge of the subject under study was assessed. through the focus group technique.

Checklists were compiled, evaluating the behavior of health personnel at the time of patient care, filling out the form for the surveillance of IRA G-ETI, taking a nasopharyngeal swab sample; the use of protective equipment by health personnel, compliance with the criteria for sample collection and transport of infectious substances, and a detailed description of the event and its interaction with the patient.

With the research team, the first work session was convened with a duration of 3 hours, for this the researcher recorded the meeting after the authorization of the health personnel, explaining the main concepts about healthy organizations and the application of positive psychology to healthy organizations. Once the problems were carried out and presented through the brainstorming technique, a matrix was made with the health personnel to identify the causes of non-compliance with the regulations in the care process of patients with acute respiratory diseases.

Table 1

Main findings and their causes in the evaluation of compliance with regulation 100 on integrated epidemiological surveillance of HAI, found in health professionals at the Dr. Alejandro Dávila Bolaños Health Center.

Findings of Health Personnel in the Assessment of Compliance with Regulations 100	Causes of the Findings Found in Health Personnel in the Assessment of Compliance with Regulations 100
1. Poor Proficiency in Regulations 100	1. Poor reading of regulation 100.
2. Do not use talc-free nitrile gloves.	2. Shortages of medical equipment or use of non-sterile gloves.
3. In the use of N95 masks or N100	3. Shortages of medical equipment or use of non-surgical disposable masks.
4. Do not use hats hair covers, or elastic.	4. Annual delivery of sampling equipment and not giving 100% of the health unit's resources only to laboratory personnel.
5. Little use of safety glasses.	
6. Little use of shoe covers.	
7. Keep laboratory samples at the proper temperature.	5. Obsolete transport equipment and thermometer shortages.

Findings of Health Personnel in the Assessment of Compliance with Regulations 100	Causes of the Findings Found in Health Personnel in the Assessment of Compliance with Regulations 100
8. Do Hand Hygiene	6. Inadequate practice in handwashing technique and absence of hand washing in all clinics of the health unit.
9. Non-compliance with the steps of the transport of infectious substances	7. Poor proficiency in the transport steps of infectious substances
10. Improper position of the head at the time of laboratory sample collection	8. The position of the patient’s head is subjective, depending on the observation of the researcher.
11. Non-compliance in the introduction of swabs into both nostrils	9. Shortage of pediatric swabs, so only oropharyngeal samples were taken.
12. Incomplete completion of the date of first consultation and clinical record number.	10. The number of patients seen by health personnel does not allow the data to be filled in correctly.
13. Incomplete filling of patient data	
14. Incomplete completion of clinical data	
15. No Radiology Results Report	11. Patients are treated on an outpatient basis.
16. No information from lab data	
17. There is no report on the patient’s evolution	
18. Deficiency was found in the registration of the doctor’s name, date, and stamp.	12. Fear of making a mistake in taking the sample and being reported, in addition to the very short time to complete all the data.

Source: Brainstorming with health personnel.

A second session was held with the research participants and the SWOT and CAME matrix were carried out.

Table 2

SWOT and CMEA strategy established by health personnel.

FORTRESS	MAINTAIN
Compliance with indicators in health services through public policies driven by good governance.	Maintain motivation by recognizing the value and importance of the actions carried out by healthcare staff. Continue with the network of health facilities focused on health promotion and prevention.
Expansion of the service portfolio.	Continue to provide quality and warm care to continue meeting the agreed indicators and as a humane way of restitution of the right to health.
Inter-institutional coordination and active participation of the community network for the screening of patients with acute respiratory infections.	Strengthen institutional leadership, as a mechanism to continue developing the organizational culture focused on health objectives and strengthen the epidemiological surveillance system in public health.
OPPORTUNITIES.	EXPLORE
Monthly scheduling of medical supplies.	In the monthly report on medicines, improve the scheduling of consumption to have medical supplies available permanently.
Health advocacy in the institutions of the municipality.	Continue to coordinate with municipal institutions focused on the promotion and prevention of acute respiratory infections. (MIFAM, MINED, MAYOR'S OFFICE, NATIONAL POLICE)
Health promotion activities according to the main causes of morbidity and risk groups according to the life cycle.	Capture the attention of the general population to influence the promotion and prevention of acute respiratory diseases.
Epidemiological Surveillance System (SIVE).	Strengthen the epidemiological surveillance system through the daily report of health units of patients with ARI.
Community Information System (SICO)	Continue to train the community network and provide stationery for the reporting of patients with acute respiratory infections.

WEAKNESS	CORRECT
Health teams are not complete, making it difficult to take a nasopharyngeal swab sample.	We will complete the Family and Community Health Teams, so that they offer health services that are more accessible, efficient, equitable, with better technical quality, and that better meet the expectations of the users of the health unit.
Lack of complete equipment for transporting infectious substances.	Manage with the administration of the health unit the purchase of transport equipment and infectious substances.
Sinks are not available in all doctors' offices or the respiratory area.	Management of the administration of the health unit with the administration of SILAIS Masaya the purchase of sinks.
Loss of continuity of care.	Report of nasopharyngeal swab or oropharyngeal swab results within 24 hours of sample collection.
THREATS	FACE
Failure to comply with standards and care protocols.	Train clinicians, doctors, and nurses on the 100 regulation
Poor communication with the patient during care and little health education and information to the population.	Focus on health care centered on the person, family, and community, taking into account the particularities of gender, sex, and race, as well as their customs and traditions and reason for consultation.
Deficient application of asepsis and antisepsis measures in health personnel.	Strengthen monitoring action by applying checklists and publicizing the results.
Poor monitoring of personal protective equipment.	Strengthen monitoring of compliance and use of personal protective equipment by the administrative staff and management of the health unit.
Shortages in medical supplies.	The administration of the health unit must guarantee the supply of medical supplies in the health unit.

Source: Work session with health personnel.

Discussion of results: In the process of analyzing the information, the focus group technique was used, which allowed brainstorming, and analyzing the opinions of each of the team subject to research. The study found and discussed weaknesses and causes at the time of care of patients with acute respiratory infections; such as the lack of reading of the 100 regulations, committing the team to self-study and not staying only with the knowledge imparted in teaching.

The health personnel reported that they did not implement the use of personal protective equipment properly, due to the shortage of medical supplies, blaming the administration of the health unit; They state that part of the administration service is delivered annually and with priority given to laboratory personnel, although the work is also carried out by medical and nursing staff and the supply of personal protective equipment to 100% of the health personnel involved in the care of patients with acute respiratory infections must be guaranteed as a rule.

The team under investigation reports that the transport equipment is obsolete, corroborating the lack of mastery in the steps of transporting infectious substances on the part of the workers. Another finding found is the inadequate execution of the handwashing technique, expressing that it is due to the absence of hand washing in all the clinics of the health unit. The participants of the study report that according to the norm, at the time of taking the sample of the nasopharyngeal swab or oropharyngeal, the position of the patient's head should be at an angle of 70 degrees and that the findings could be subjective and depend on what was observed by the researcher.

Another of the findings found and not implemented by the resource of the health unit responsible for the collection of laboratory samples, is the introduction of swabs in both nostrils; arguing the shortage of pediatric swabs, taking samples in this age group only from the oropharyngeal area, with the permission and authorization of the director of the health unit and the authorities of SILAIS Masaya. Failing to comply with the provisions of the book Salud, M. D (2018), Nicaragua; Regulation 100 on the surveillance of G-ETI IRA that requires the collection of laboratory samples strictly from the nasopharyngeal area and oropharyngeal area.

In the complete filling out of the form for the surveillance of ARI G-ETI, they report that it was not filled out correctly due to the high demand of patients who come to the health center in search of medical attention. The team under investigation in the sections of filling out the radiological data, laboratory report, and clinical evolution of the patient of the form for the surveillance of ARI G-ETI reported that the cause of not completing the sections is because the patients are treated on an outpatient basis, and the data requested by the form in these sections are for hospital use and not for primary health care.

After the use of the brainstorming technique, the SWOT and CAME matrices were made. Finding strengths in the fulfillment of the indicators of the health services, a broad portfolio of services, and solid inter-institutional coordination, managing to maintain the focus on promotion and prevention; emphasizing the motivation of the staff recognizing the value of the actions carried out; it is explained that quality care must continue with the objective of complying with the agreed indicators and as a humane way to restore the right to health, through the strengthening of institutional leadership.

Among the opportunities, the health team defined that the monthly programming of medical supplies, health advocacy in the institutions of the municipality, and an epidemiological surveillance system with strong bases, in addition to having the community information system must be guaranteed; establishing that these resources must be exploited by carrying out the monthly report of medicines well, guaranteeing the coordination and participation of municipal institutions, focused on the promotion and prevention of acute respiratory diseases.

In addition, the daily report of the patients with acute respiratory infections and compliance with the training of the community network was established, a fundamental step established in compliance with the regulations of the conceptual framework of the family and community health model where citizen participation is established with an emphasis on shared responsibility for the health of the population.

It was determined to correct and complete the family and community health teams, which should be complete with a doctor, a nurse, and a nursing assistant who offer more accessible, efficient health services with technical quality that better meet the expectations of the users of the health unit. It was agreed and explained to the management team of the health unit the need to manage the purchase of equipment for transporting infectious substances, as well as sinks and their habilitation in each office.

The threats where the main causes have their origin from the administrative point of view were analyzed, with the management team facing the fact of strengthening the monitoring action with checklists, publicizing the results obtained and carrying out the analysis with the evaluated resources.

With the team under investigation, it was of utmost importance to carry out the activity, because from it emerged the operational plans, taking into account that as an institution we must be in permanent evaluation to correct the care processes, so we proceeded to the realization of the work matrices to have a basis for the realization of intervention plans.

CONCLUSIONS

The visualization of the findings found in the evaluation of regulation 100 in the integrated surveillance of HAIs allowed the staff under study and the institution to establish the internal and external situation of the health unit, establishing in the management team of the Dr. Alejandro Davila Bolaños health center the consolidation of the team responsible for the management of the institution. Giving continuity to monitoring, application of checklists, and presenting the results to the workers of the health unit to strengthen the quality of the care system.

It was determined that the main causes of non-compliance with the regulations are due to the high demand for health services that intervene directly in the care process, in addition to improving the management of the purchase of medical, nursing, and laboratory supplies through the administration area.

We must continue to strengthen the area of continuing education, focusing on the person, family, and community, completing the family and community health teams so that health services are offered with better technical quality and equity, taking into account the particularities of gender, sex, race, customs, and traditions. Maintain the motivation of health personnel by recognizing the value and importance of the actions they are carrying out in favor of the health of Nicaraguan citizens.

Institutional leadership must be strengthened as a mechanism to continue developing the organizational culture focused on health objectives and the family and community health model implemented in the country. In the area of epidemiology, the application of asepsis and antisepsis measures in health personnel must be strengthened and guaranteed; Strengthen the epidemiological surveillance system through the daily report of the health units of patients with HAI, train the community network and provide stationery for the report of patients with acute respiratory infections from the community information system.

Health personnel must strengthen self-study, manage and demand the equipment of personal protective equipment, and the supply of medicines; It should increase health promotion and prevention actions with the support of the community network, a fundamental part of the health model and epidemiological surveillance. Compliance with the follow-up and treatment of patients reported with acute respiratory infection and taking measures to prevent and spread the disease.

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