



**Agência Nacional de Vigilância Sanitária
(Brazilian Health Regulatory Agency)**

National Plan for Antimicrobial Resistance Prevention and Control in Health Services

Health Services Surveillance and Monitoring Office

Health Services General Office

Brazilian Health Regulatory Agency

Brasília, May 15th, 2017.



**Agência Nacional de Vigilância Sanitária
(Brazilian Health Regulatory Agency)**

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LIST OF ABBREVIATIONS

ADEGRAF	Association of Graphic Designers DF
ANVISA	Brazilian Health Regulatory Agency
ASCOM	Communication Assistant /GADIP / ANVISA
CATREM	Technical Chamber on Antimicrobial Resistance in Health Services
CCIH	Hospital Infection Control Committee
CDC	Centers for Disease and Control
CECIH	State Coordination of Hospital Infection Control
CEVEC	Coordination of Events and Ceremonies/GADIP/ ANVISA
CFORT	Coordination of Health Regulation System Strengthening /GGCOF/ ANVISA
CFT	Pharmacy and Therapy Committee
CGLAB	General Coordinator of Public Health Laboratories/Ministry of Health
CIB	Bipartite Managerial Committee
CIT	Tripartite Managerial Committee
CLABSI	Central Line-associated Bloodstream Infection
CMCIH	Municipal Hospital Infection Control Committee
CNCIRAS	National Commission on Prevention and Control of Healthcare-Associated Infections
CNES	National Registry of Health Services
CONASEMS	National Council of Municipal Health Departments
CONASS	National Council of Health Secretaries
Curarem	Technical Committee of Rational Antimicrobial Use and Antimicrobial Resistance
CVC	Central Venous Catheter
Fiocruz	Fundação Oswaldo Cruz
GAL	Laboratory Setting Managerial System / Ministry of Health
GELAS	Public Health Laboratories Office / ANVISA
GGCIP	General Management of Knowledge, Innovation and Research
GGCOF	General Management of Coordination of Health Regulation System Strengthening/ ANVISA

GGTES Health Services General Office / ANVISA

GVIMS Health Services Surveillance and Monitoring Office
/GGTES/ANVISA

HAI Healthcare Associated Infection

ICU Intensive Care Unit

IOC Instituto Oswaldo Cruz

LACEN Central Public Health Laboratory

LAPIH Hospital Infection Research Laboratory

PAHO Pan American Health Organization

PEPCIRAS State Programs for the Prevention and Control of HAIs

PNPCIRAS National Program for the Prevention and Control of HAIs

RDC Resolution of the Board

AMR Antimicrobial Resistance

SVS Health Regulation Secretary

VISA Health Regulation

WHA World Health Assembly

WHO World Health Organization

Foreword

The occurrence of healthcare-associated infections (HAI) is a highly prevalent situation in Brazilian health services, leading to use of different classes of antimicrobials in large proportions, which favors the occurrence of antimicrobial resistance – a severe public health issue in the whole world.

Fighting the onset and propagation of antimicrobial resistant bacteria and the development of new resistance mechanisms requires a joint approach of governmental and society segments. In addition, it takes policies that result in investments in research studies, acquisition of technologies and human resources development.

Based on national and international commitments, ANVISA – Brazilian Health Regulatory Agency has designed an Antimicrobial Resistance Action Plan for Health Regulatory Agency which guides the actions of the agency to tackle this urgent public health issue. It includes strategies for different areas of health regulation, such as foods, health services, laboratory, among others. The activities that involve health services were designed based on ANVISA's perspective, bringing on the macro understanding. The Health Services General Office (GGTES/ANVISA) has realized the need to present a National Plan for Antimicrobial Resistance Prevention and Control to define prevention and control actions for the health services of the country. It details the activities described in ANVISA Action Plan, adding other specific actions that confirm the broad objective required to define national strategies for detection, prevention and reduction of Antimicrobial Resistance (AMR) in health services.

Following the Health Regulation Action Plan, the present Plan is organized into three parts: Strategic plan, operational plan and monitoring plan. It has been planned to be executed within 5 years, with annual evaluations to review the necessary adjustments.

By implementing this Plan, GGTES will contribute to address this serious public health issue by creating national strategies to promote detection, prevention and reduction of antimicrobial resistance in health services in the country.

Introduction

The emergence of resistant microorganisms to some antimicrobial classes has been increasing in past decades, representing a threat to public health all over the world. The Center for Diseases Control – CDC/USA estimates that every year at least 2 million diseases and 23,000 deaths are caused by antibiotic-resistant bacteria in the United States ¹.

It is a recurrent problem, among other factors, such as mutation and transferable material (plasmid, transposons, and integron), indiscriminate and inappropriate use of antimicrobials, not only in human health but also in animal health, and in economic and commercial industries ^{2, 3, 14}.

The clinical use of antimicrobials plays a role in selecting resistant strains and it is probably the main cause of resistance, especially in hospital settings, where these drugs are more frequently used ^{2, 3}. It requires effective interventions in hospital settings to minimize the problem of antimicrobial resistance, and the control of antimicrobial use and control and prevention of HAIs are the two most frequent actions to address the issue ¹⁵.

The implementation of intensive programs to control and prevent HAIs consists of an efficient approach to control the dissemination of antimicrobial resistance in the hospital setting. Important components of these programs include surveillance, investigation and control of outbreaks, sterilization and equipment disinfection protocols, implementation of patient care practices, such as hand hygiene ^{15, 16}, and isolation and barriers for infected/ colonized patients ¹⁷. Moreover, it also includes the need to support the microbiology laboratory to detect as early as possible the infection, quickly characterizing the antimicrobial resistance profile to support decision-making by healthcare professionals ¹⁶.

There are other segments of life that have also contributed significantly to the emergence of antimicrobial resistance, in addition to inappropriate and excessive use of antimicrobials. In animal health, antimicrobials are used to treat sick animals and are also widely used to prevent diseases in healthy animals. In many countries, they are also used to promote growth by mass administration to herds. Moreover, antimicrobials are commonly used in agriculture and commercial fish and sea food farms ⁷. It is a consensus that widely use of antibiotics has favored selection pressure, resulting in predominance of increasingly more resistant bacterial species ⁸, and the intensity of use has directly influenced this phenomenon ⁹.

The direct consequences of infections caused by antimicrobial-resistant microorganisms are severe, including increase of morbidity and mortality, increase of hospital stay, reduction or loss of protection of patients undergoing many procedures (such as surgery, chemotherapy or transplant), reduction of technology arsenal or lack of therapeutic options for treating the microorganisms that cause the infection ¹⁰. If antibiotic efficacy is lost, there will be no reliable and quick alternatives to treat bacterial infections, including bacterial pneumonias, food-borne diseases and healthcare-associated infections – HAIs ¹. As bacterial strains become more resistant to a larger number of antibiotics, therapeutic options have become more limited and expensive and, in some cases, nonexistent ¹.

Moreover, the financial cost of failed therapy due to resistant microorganisms is very high, increasing the burden on the public healthcare systems. It is estimated that, in the United States alone, the cost of bacterial resistance is about US\$4 to 5 billion annually ¹¹.

According to the World Health Organization (WHO), antimicrobial resistance affects not only healthcare, but also other sectors of the community. The indirect impact of antimicrobial resistance goes beyond the increase in healthcare and it encompasses economic losses due to reduction of productivity caused by the disease (on people and animals) and the higher costs of treatment ⁷.

As reported by WHO, antimicrobial resistance is a cost drain in global economy and facing it is mandatory: Long term investments should be made to encourage the Development of new medications, diagnostic tools, vaccines and other interventions. In addition, provision of technical and financial support to developing countries and strengthening of healthcare systems to promote access and effective use of antimicrobial agents ⁷ are feasible alternatives.

The resistance of many bacterial species to antimicrobials is extremely variable among countries and regions ¹⁰. Thus, it is necessary to adopt coping strategies to define the priority microorganisms to be monitored, based on world epidemiological data and information and according to the epidemiological profile and local reality.

Considering the severity of the antimicrobial resistance status in the whole world and to guide the countries in their fight against this situation, WHO has developed a Global Action Plan on antimicrobial resistance. The plan was requested by the Health Assembly under resolution

WHA 67.25 in May 2014 and it shows the world consensus that antimicrobial resistance represents a serious threat to human health ⁷. The objective of the action plan is to treat and prevent infectious diseases with effective high-quality and safe medication, used responsibly and accessible. To reach this objective, WHO has defined five strategic pillars and general strategies to guide the actions for individual member states and national and international partners.

In view of this, and based on WHO proposed goals, the epidemiological status of antimicrobial resistance in Brazil, and the current status of the healthcare system these objectives were presented in the National Plan for Antimicrobial Resistance Prevention and Control. It guides the strategies and actions to detect, prevent and control the dissemination of resistant microorganisms in a systematic and fast fashion, based on scientific and laboratory evidence. The plan should be developed together with the stakeholders, especially state, district and municipal coordinators of hospital infection control and the Hospital Infection Control Committee of health services in the country.

Analysis and assessment of the current status

In 2005, ANVISA, in partnership with the Pan American Health Organization (PAHO/WHO) and the General Coordinator of Public Health Laboratories - CGLAB/SVS/MS, created the National Network for Monitoring Antimicrobial Resistance in Health Services (AMR Network). The main purpose was to have more effective health services by detecting, preventing and controlling the emergence of antimicrobial resistance in health services in the country.

AMR Network was initially formed by Sentinel Hospitals (Laboratories of Microbiology and Hospital Infection Control Committees), Central Public Health Laboratory (LACEN), State and Municipal Health Regulation Offices, State and Municipal Hospital Infection Control Committees, and many other contributors. All of those who were part of AMR Network in 2005-2008 were trained to improve identification of microorganisms at LACEN and microbiology laboratories in health services.

As of July 2006, ANVISA started to monitor the sensitivity profile of priority agents involved in primary bloodstream infections (BSIs) through the Management Office of Investigation and Prevention of Infections and Adverse Events (GIPEA). Infection Control Committees of health services members of AMR Network notified on a monthly basis laboratory confirmed central line-associated bloodstream infections (CLABSI), according to the criteria defined by NHSN/CDC, in inpatients of adult, pediatric and neonatal Intensive Care Units, using excel spreadsheets and system SINAIS. Up to June 2008, 97 hospitals participated by providing monthly data about antimicrobial sensitivity.

In 2009, based on Administrative Act No. 629/2009, a Technical Chamber of Antimicrobial Resistance in Health Services (CATREM) was created to support the ANVISA's team and the Technical Committee of Rational Antimicrobial Use and Antimicrobial Resistance (CURAREM) in designing rules and regulations for monitoring, controlling and preventing antimicrobial resistance in health services in Brazil. In 2012, CATREM became a Technical Chamber thanks to Administrative Act No. 1.237/2012, formed by seven effective and eight deputy experts in the country on topics concerning Antimicrobial Resistance and Infection Control related to healthcare, whose composition is renewed every three years.

Between 2008 and 2010, many Work Groups were created to define the National

Diagnostic Criteria for HAIs and to design manuals for Prevention of the Main HAIs.

As of 2012, holding already defined national diagnostic criteria, the AMR Network was expanded to 1,144 health services in the country that had 10 or more pediatric, adult or neonatal ICU beds. These centers started to report monthly the required national indicators for laboratory confirmed primary central line-associated bloodstream infections (CLABSI) in Adult, Pediatric and Neonatal Intensive Care Therapy Units based on 33 phenotypic profiles of priority microorganism defined CATREM.

The analyzed national data have generated the Patient Safety and Quality in Health Services Bulletin, prepared by the Health Services Surveillance and Monitoring Office (GVIMS) and its staff. In 2013, the first report of the National Network of Resistance Monitoring was published, including data from 908 hospitals of 26 of the 27 Brazilian states, including resistance phenotypic data of 19,009 microorganisms responsible for causing CLABSI in Brazilian ICUs. Based on such information, it was formally confirmed that antimicrobial resistance was a public health issue in all regions of Brazil.

According to the Patient Safety and Quality in Health Services Bulletin No. 14, published in December 2016, there were 22,499 reports of microorganisms causing CLABSI in adult ICUs in 2015 and the most frequent ones were: *Klebsiella Pneumoniae* (16.9%, n = 3,805), followed by *Staphylococcus Coagulase Negative (SCoN)* (16.5% n=3,703), *Staphylococcus aureus* (13.2% n = 2,734), *Acinetobacter spp.* (12.2% n=2,734) and *Pseudomonas aeruginosa* (10.0% n= 2,242). The frequency of distribution varies depending on the region, and some microorganisms are more frequent in one region than the other ¹².

Concerning the phenotypic profile of microorganisms in adult ICUs, among gram-positive cocci Resistance to oxacillin was observed in 74.9% of the samples of SCoN and 57.4% of the samples of *S. aureus*, and resistance to vancomycin was observed in 28.8% of *Enterococcus spp.* samples. Among gram-negative bacilli, there were high resistance rates to carbapenems in 2015, following the same trend from previous years. For non-fermenting gram-negative bacilli, carbapenem resistance was reported in 77.4% of *Acinetobacter spp.* and 39.1% of *Pseudomonas aeruginosa*. For Enterobacteriaceae gram-negative microorganisms, resistance rates to carbapenem and broad spectrum cephalosporin (third and/or fourth generation) was 9.7% for *Escherichia coli*, 43.3% for *Klebsiella pneumoniae* and 21.6% for *Enterobacter spp.* ¹².

To strengthen the national surveillance and monitoring actions of HAIs caused by multi-

resistant microorganisms by identifying multi-resistant strains in the laboratory, in 2013 ANVISA and the Ministry of Health created the Analytical Sub-network of Antimicrobial Resistance in Health Services (Administrative Act GM/MS No. 3120/2013 and TED No. 03/2014), comprised of LACEN in states of Piauí, Paraná, São Paulo and Federal District. In addition, the Hospital Infection Research Laboratory (LAPIH) of *Instituto Oswaldo Cruz* (IOC) of *Fundação Oswaldo Cruz* (Fiocruz) was identified as the reference laboratory for additional analyses.

AMR Sub-network is a fundamental strategy for timely detection and characterization of microorganisms and resistance mechanisms involved in infectious outbreaks in health services in Brazil, educating them about prevention and control measures to restrain resistance dissemination. Its main goal is to design an evolution history of multi-resistant strains related to healthcare and to intervene to prevent antimicrobial resistance in health services.

As of 2014, once the National Program for the Prevention and Control of Healthcare Associated Infections (PNPCIRAS) was published, the AMR Network was expanded to 1,887 health services that had any number of adult, pediatric or neonatal ICU beds. These centers should notify monthly their data on the 33 antimicrobial resistance markers identified in laboratory confirmed primary CLABSI, according to the national criteria in adult, pediatric and neonatal ICU patients.

Thanks to the reports and the surveillance carried out by AMR Sub-network, it was possible to define the status of antimicrobial resistance in the country. However, under reporting is still a challenge for monitoring HAIs and antimicrobial resistance. Surveillance and monitoring require regular notification with consistent data to define the epidemiological profile of the country and to identify the real problems to be faced ¹².

There is still a lot to be done towards compliance with HAIs reporting, which is still low in many states, which also applies to monthly regularity of reporting. Having regular monthly notification indicates the presence of an active infection control committee and the definition of monitoring routines. Ideally, all hospitals should report their data 12 months a year; however, it has happened only for 65.8% of the hospitals in 2015¹².

In 2016, the published PNPCIRAS 2016-2020 had the goal to consolidate the Epidemiology Health Regulation National System for HAIs with strategic actions to improve frequency of notification, reducing under reporting ¹³.

To reach the national goal of reducing HAIs in health services, in addition to the goal mentioned about, PNPCIRAS 2016-2020 defined the specific objectives of reducing the

national incidence of priority HAIs; prevent and control dissemination of antimicrobial resistance in health services, and consolidate PNPCIRAS ¹³.

In 2016, GVIMS/GGTES published the Risk Communication Memo No. 1/2016 about detection of the gene responsible for plasmid mediated polymyxin resistance (mcr-1) in Brazil. This Risk Communication Memo warned health services and laboratories about the parameters to be observed when indicating the presence of a new resistance mechanism. It has also highlighted the role of laboratories in detecting them and the role of infection control committees in controlling the infections and monitoring the data. The first reports of infections in humans caused by gene mcr-1 microorganisms were made to ANVISA in 2016 ^{18,19}.

In 2017, GVIMS/GGTES published the Risk Communication Memo No. 1/2017 about the reports of *Candida auris* outbreaks in Latin American health services to warn the centers for the need to observe this emerging fungus, which represents a severe threat to global health, as resistant strains to the main antifungal agents had already been reported. This fungus has been identified in many countries, but in Brazil no cases of *C. auris* infections have been reported so far and its identification requires specific laboratory methods ^{20, 21}.

Thus, to design the present plan, we have taken into consideration the objectives, actions and goals recommended by PNPCIRAS 2016-2020.

Objectives

General Objective

Define the national strategy for detection, prevention and reduction of antimicrobial resistance (AMR) in health services.

Specific Objectives

- ✓ Improve the awareness and understanding about AMR in health services by providing communication, education and effective training.
- ✓ Reinforce knowledge and scientific basis through health regulation actions and investigation of infections and AMR in health services.
- ✓ Reduce the incidence of infections by adopting effective measures to prevent and control them in health services.
- ✓ Promote rational use of antimicrobial agents in health services.

Strategic Plan

Pillar 1: Improve awareness and understanding about antimicrobial resistance through effective communication, education and training

SPECIFIC OBJECTIVE GGTES 1 – Improve awareness and understanding about AMR in health services through effective communication, education and training.

Strategic Intervention ANVISA	Strategic Action GGTES	Activities	Involved ANVISA areas and agencies
Work in coordination with the Ministry of Health to define and implement strategies for building awareness of the community, healthcare professionals and managers about infection control and prevention, rational antimicrobial use and antimicrobial resistance.	1.1.1. Implement awareness strategies to the community about infection prevention and control and AMR in health services.	1.1.1.1. Disseminate material about the importance of having patients/ family members adopt prevention and infection control measures and AMR in health services.	GGTES ASCOM HOSPITAL INFECTION CONTROL COORDINATORS VISAS CCIH
		1.1.1.2. Periodically disseminate to the community the updated data of HAIs and AMR in health services.	GGTES ASCOM HOSPITAL INFECTION CONTROL COORDINATORS VISAS
	1.1.2. Develop awareness actions with healthcare managers about AMR and the importance of having infection prevention and control measures in health services.	1.1.2.1. Create partnerships with the Ministry of Health and National Regulatory Agency for Private Health Insurance and Plans (ANS) to offer awareness actions to healthcare managers.	GGTES MS ANS
		1.1.2.2. Address the topic of HAI prevention and control and AMR in the meetings of the Tripartite Managerial Committee (CIT).	GGTES GGCOF CIT
		1.1.2.3. Disseminate the list of hospitals with ICU beds that have high compliance rates with patient safety practices, including HAI	GGTES CCIH CNCIRAS VISA

		prevention and control and AMR.	
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Strategic Intervention ANVISA	Strategic Action GGES	Activities	Involved ANVISA areas and agencies
Include the topic in capacity building programs promoted by Anvisa to SNVS and health services professionals and managers.	1.2.1. Support and induce training on HAls and AMR for healthcare professionals.	1.2.1.1. Regulate the mandatory training at hiring and periodic updates on infection control and prevention and AMR to all healthcare professionals.	GGES HOSPITAL INFECTION CONTROL COORDINATORS CATREM CNCIRAS
		1.2.1.2. Provide updated material about the topic for healthcare professionals.	GGES
		1.2.1.3. Make strategic partnerships with the Ministry of Health, Trade Associations, professional associations and other agencies involved with the topic to develop training actions on HAls and AMR.	GGES MINISTRY OF HEALTH TRADE ASSOCIATIONS PROFESSIONAL ASSOCIATIONS
		1.2.1.4. Support the training actions promoted by the State, District and Municipal Coordinators of Infection Control directed to healthcare professionals on infection prevention and control and AMR.	GGES HOSPITAL INFECTION CONTROL COORDINATION

	1.2.2. Support and induce training on HAIs and AMR for health regulation professionals of services and state, municipal and district coordination offices of hospital infection control.	1.2.2.1. Develop actions to promote capacity building of health regulation professionals in health services and State, District and Municipal Coordinators of Hospital Infection Control on infection control and AMR.	GGTES VISA HOSPITAL INFECTION CONTROL COORDINATORS
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Pillar 2: Emphasize knowledge and the scientific basis by health regulation and research

SPECIFIC OBJECTIVE GGTES 2: Emphasize knowledge and scientific basis by health regulation and investigation of infections and AMR in health services

Strategic Interventions ANVISA	Strategic Action GGTES	Activities	Involved ANVISA Areas and Agencies
Define, in partnership with the Ministry of Health, the model of national network of laboratories for health regulation and monitoring of antimicrobial resistance	2.1.1. Participate in the definition of the health regulation laboratory model for HAIs and AMR in health services.	2.1.1.1. Take part in the performance of a diagnosis of the current status of laboratory health regulation for HAIs and AMR.	GGTES GELAS
		2.1.1.2. Take part in the redefinition of the health regulation model based on the diagnosis.	GGTES GELAS
Work in coordination with the Ministry of Health to structure, qualify and manage the new national model of health regulation and monitoring of antimicrobial resistance.	2.2.1. Support the structuring and management of the new model of health regulation laboratory for HAIs and AMR in health services.	2.2.1.1. Provide technical support to members of SNVS, CECIH and CMCIH in implementing the new model.	GGTES INFECTION CONTROL COORDINATORS
		2.2.1.2. Develop actions that define that health services with ICU beds should have microbiology laboratory facilities that have the required minimum capacity to detect susceptibility profile, isolate and appropriately determine the pathogen.	GGTES VISAS

	2.2.2. Participate in the promotion of qualification of microbiology laboratories that provide services to hospitals in the country.	2.2.2.1. Reinforce the importance of implementing best laboratory practices in microbiology laboratories that provide services to centers with ICU beds.	GGTES
		2.2.2.2. Develop health regulation actions that support quality improvement in microbiology laboratories that serve services with ICU beds.	GGTES VISAS
Monitor the sales and consumption of antimicrobial medication	2.3.1. Monitor nationally the consumption of priority antimicrobials in adult ICUs in Brazilian hospital.	2.3.1.1. Define the process to monitor nationally the consumption of priority antimicrobials.	GGTES HOSPITAL INFECTION CONTROL COORDINATORS CNCIRAS CATREM
		2.3.1.2. Design and provide a data collection tool for national monitoring of priority antimicrobial consumption in adult ICUs in Brazilian hospitals.	GGTES
		2.3.1.3. Publish the results of the national monitoring of priority antimicrobial consumption in adult ICUs in Brazilian hospitals.	GGTES
Improve the national system of surveillance of healthcare-associated infections (HAIs)	2.4.1. Develop an information system for reporting and data analysis of HAIs, AMR and outbreaks in health services in Brazil.	2.4.1.1. Define the requirements of the information system for reporting and data analysis of HAIs, AMR and outbreaks in Brazilian health services.	GGTES CATREM CNCIRAS VISAs HOSPITAL INFECTION CONTROL COORDINATORS GGTIN
		2.4.1.2. Develop an information system for reporting and data analysis of HAIs, AMR and outbreaks in Brazilian health services.	GGTES GGTIN

		2.4.1.3. Collect data from HAIs, AMR and outbreaks from health services in the new system.	GGTES INFECTION CONTROL COORDINATION CCIH
	2.4.2. Promote actions to qualify the reported data for HAIs and AMR.	2.4.2.1. Regulate the required reporting of outbreaks HAIs and AMR in health services.	GGTES HOSPITAL INFECTION CONTROL COORDINATORS VISAs CNCIRAS
		2.4.2.2. Develop actions to create effective communication between microbiology laboratories of health services, LACENs, CCIHs, CECIHs and CMCIHs.	GGTES HOSPITAL INFECTION CONTROL COORDINATORS VISAs CNCIRAS CATREM LACEN CCIH
		2.4.2.3. Review periodically the National Diagnostic Criteria of HAIs.	GGTES WORKING GROUP WITH AREA SPECIALISTS AND REPRESENTATI VES OF TRADE ASSOCIATIONS

		2.4.2.4. Publish a Manual of the Epidemiological Health Regulation National System for HAIs and AMR.	GGTES CNCIRAS CATREM HOSPITAL INFECTION CONTROL COORDINATORS
	2.4.3. Consolidate the health regulation and outbreak monitoring system involving multi-resistant microorganisms in health services.	2.4.3.1. Develop the structure of national health regulation and monitoring of outbreaks for SNVS and health services.	GGTES CNCIRAS CATREM HOSPITAL INFECTION CONTROL COORDINATORS CATREM CNCIRAS
		2.4.3.2. Support technically the structuring of the Infection Control and Health Regulation Coordination of health services to execute health regulation and monitoring actions in situations of outbreaks.	GGTES HOSPITAL INFECTION CONTROL COORDINATORS VISAs
		2.4.3.3. Monitor the occurrence of outbreaks associated with multi-resistant microorganisms in health services.	GGTES HOSPITAL INFECTION CONTROL COORDINATORS
Strategic Intervention ANVISA	Strategic Action GGTES	Activities	Involved ANVISA Areas and Agencies
Promote studies and scientific research projects that can support the knowledge related to antimicrobial resistance	2.5.1. Promote studies and scientific research projects that can support the	2.5.1.1. Survey and prioritize the study needs related to AMR in health services to be included in ANVISA research plan.	GGTES GGCIP
		2.5.1.2. Carry out national studies of prevalence of HAIs and AMR.	GGTES CNCIRAS CATREM

	knowledge related to antimicrobial resistance in health services.		
		2.5.1.3. Support the performance of studies about the cost of HAIs and AMR in health services.	GGTES GGCIP
		2.5.1.4. Support the performance of national studies that assess mortality and morbidity related to HAIs and AMR.	GGTES GGCIP

Pillar 3: Reduce the incidence of infections with effective measures of sanitation, hygiene and infection prevention

SPECIFIC OBJECTIVE GGTES 3: Reduce the incidence of infections with effective measures of prevention and control in health services

Strategic Intervention ANVISA	Strategic Action GGTES	Activities	Involved ANVISA Areas and Agencies
Include prevention and control of HAIs in the discussions with the Ministry of Health	3.1.1. Define the competences of SNVS to prevent and control HAIs.	3.1.1.1. Carry out a diagnostic analysis of the current status of infection prevention and control in the country.	GGTES GGCOF
		3.1.1.2. Identify SNVS competences in the national policy of infection prevention and control.	GGTES VISAS HOSPITAL INFECTION CONTROL COORDINATORS
	3.1.2. Discuss with the Ministry of Health about HAIs in the national policy of infection prevention and control.	3.1.2.1. Design proposals of national HAIs prevention and control actions to include in the national policy of infection prevention and control.	GGTES

		3.1.2.2. Present to GTVisa the competences of SNVS in the proposal of national actions of HAIs prevention and control.	GGTES GGCOF
		3.1.2.3. Discuss and present to Ministry of Health a proposal of national actions for HAIs prevention and control.	GGTES COPES MIN HEALTH
Strengthen the implementation of infection prevention and control measures in health services	3.2.1. Develop strategies to improve the assessment capabilities and the actions of SNVS and the Coordinators of Hospital Infection Control on infection prevention and control measures adopted by state and municipal levels and health services.	3.2.1.1. Promote national events to health regulation managers and technicians and Coordinators of Hospital Infection Control about infection prevention and control actions directed to all involved parties.	GGTES GGCOF
		3.2.1.2. Support technically the capacity building of professionals from SNVS and Coordinators of Hospital Infection Control on HAIs and AMR prevention and control.	GGTES VISAs HOSPITAL INFECTION CONTROL COORDINATORS
		3.2.1.3. Promote periodic reporting of updated data on HAIs and AMR reports.	GGTES
	3.2.2. Strengthen the decentralization of infection prevention and control actions to municipal and state levels.	3.2.2.1. Agree with Tripartite Managerial Committee (CIT) on the effective definition of the roles of State Coordinators of Hospital Infection Control.	GGTES GGCOF
		3.2.2.2. Encourage the effective creation of Municipal Coordinators of Hospital Infection Control at the level of Bipartite Managerial Committees (CIBs).	GGTES HOSPITAL INFECTION CONTROL COORDINATORS VISAs GGCOF
	3.2.3. Promote the	3.2.3.1. Disseminate fully PNPCIRAS.	GGTES

	implementation of the National Program for the Prevention and Control of HAIs (PNPCIRAS)	3.2.3.2. Support CECIHs in developing and implementing the State Programs for Prevention and Control of HAIs (PEPCIRAS), aligned with PNPCIRAS.	GGTES CECIH
		3.2.3.3. Propose the implementation of a transfer and transportation protocol for patients colonized/ infected with multi-resistant microorganisms in health services.	GGTES HOSPITAL INFECTION CONTROL COORDINATORS CNCIRAS

Pillar 4: Use rationally antimicrobial medications for human and animal health

SPECIFIC OBJECTIVE GGTES 4: Promote rational use of antimicrobial medications in health services.

Strategic Intervention ANVISA	Strategic Action GGTES	Activities	Involved ANVISA Areas and Agencies
Define strategies to qualify the use of antimicrobials in health services	4.1.1. Promote the implementation of programs for rational use of antimicrobials in health services.	4.1.1.1 Publish and disseminate the National Guidelines for the Management Program of Antimicrobial Use in Health services	GGTES HOSPITAL INFECTION CONTROL COORDINATORS
		4.1.1.2. Produce and distribute the communication material for rational use of antimicrobials in health services	GGTES ASCOM
		4.1.1.3. Define actions to promote the implementation of protocols for rational use of antimicrobials in ICUs, as provided by RDC 07/2010.	GGTES VISAs HOSPITAL INFECTION CONTROL COORDINATORS CNCIRAS

Operational Plan

Pillar 1: Improve awareness and understanding about antimicrobial resistance through effective communication, education and training

SPECIFIC OBJECTIVE GGES 1 - Improve awareness and understanding about antimicrobial resistance in health services through effective communication, education and training.

Strategic Intervention ANVISA – Work in coordination with the Ministry of Health to define and implement strategies for building awareness of the community, healthcare professionals and managers about infection control and prevention, rational antimicrobial use and antimicrobial resistance.

Strategic Action GGES 1.1.1 Implement awareness strategies to the community about infection prevention and control and AMR in health services.

Sub-activity (Sub-Activities)	Outcome / Product	Quantity / Frequency	Timeframe	Involved parties	Responsible agency	Cost	Funding
1.1.1.1 Disseminate material about the importance of having patients/ family members adopt prevention and infection control measures and AMR in health services							
Sub-activity 1.1.1.1.1 Prepare educational materials about infection prevention and control and AMR directed to patients, accompanying people and visitors	Preparation of educational materials (manual, folders, posters, stickers, videos)	1	1 st part 2019	GVIMS ASCOM	GVIMS	To be defined (it depends on the planned materials)	ANVISA

Sub-activity 1.1.1.1.2 Disseminate the educational materials on ANVISA website	Communication through ANVISA website	Continuous	As of 2019	GGTES ASCOM	GVIMS	Free of cost	-
Sub-activity (Sub-Activities)	Outcome / Product	Quantity / Frequency	Timeframe	Involved parties	Responsible agency	Cost	Funding
Sub-activity 1.1.1.1.3 Disseminate the educational materials in events promoted or sponsored by GGTES.	Dissemination of materials in events	Continuous	As of 2019	GGTES	GVIMS	Free of cost	-
Sub-activity 1.1.1.1.4 Disseminate the educational materials to Coordinators of Hospital Infection Control, CCIHs and Health Regulation through social media (WhatsApp, Facebook etc.)	Dissemination of materials to CECIHs, CMCIHs, CCIHs and health regulation agents	Continuous	As of 2019	GVIMS VISAs CECIH CMCIH CCIH	GVIMS	Free of cost	-

Sub-activity 1.1.1.1.5 Disseminate the educational materials to representative associations and entities that address the topic (ABIH, APECIH, AMIB, among others).	Dissemination of materials to representative entities	Continuous	As of 2019	GVIMS Representative entities	GVIMS	Free of cost	-
1.1.1.2 Periodically disseminate to the community the updated data of HAI and AMR in health services.							
Sub-activity 1.1.1.2.1 Prepare annual bulletins to the community with easy to understand language reporting the public data on HAI and AMR.	Bulletin	Annual	As of 2018	GVIMS	GVIMS	R\$ 11,000 (Estimated cost based on Adegraf table (Association of Graphic Designers DF), to prepare a 100-page booklet with 10 charts, 10 tables and 10 photos).	ANVISA

Sub-activity 1.1.1.2.2 Disseminate broadly the bulletins to reach the target audience – ANVISA website, healthcare enters, social medial, trade associations and representative entities.	Disseminated bulletin	Annual	As of 2018	GGTES	GVIMS ASCOM	Free of cost	-
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Strategic Action GGTES 1.1.2 Develop awareness actions with healthcare managers about AMR and the importance of having infection prevention and control measures in health services.

Sub-activity (Sub-Activities)	Outcome / Product	Quantity / Frequency	Timeframe	Involved parties	Responsible agency	Cost	Funding
1.1.2.1 Create partnerships with the Ministry of Health and National Regulatory Agency for Private Health Insurance and Plans (ANS) to offer awareness actions to healthcare managers.							
Sub-activity 1.1.2.1.1 Develop a proposed project to build awareness of health services managers.	Proposed project	1	1 st part 2019	GGTES	GVIMS	Free of cost	-

Sub-activity 1.1.2.1.2 Present the proposed project to build awareness of managers to the Ministry of Health and ANS and propose a partnership to execute it.	Presented project	1	1 st half of 2019	GGTES Min Health ANS	GVIMS	Free of cost	-
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1.1.2.2. Address the topic of HAI prevention and control and AMR in the meetings of the Tripartite Managerial Committee (CIT).

Sub-activity 1.1.2.2.1 Prepare material to discuss in the meetings of CIT	Material for presentation	1	1 st part 2019	GGTES	GVIMS	Free of cost	-
Sub-activity 1.1.2.2.2 Present the material in CIT meetings.	Presentation of material in meetings	2	As of 2019	GGTES GGCOF	GVIMS	Free of cost	-

1.1.2.3. Disseminate the list of hospitals with ICU beds that have high compliance rates with patient safety practices, including HAI prevention and control and AMR.

Sub-activity 1.1.2.3.1 Provide a self-assessment annual form of Patient Safety Practices in Health services for hospitals that have ICU beds.	Self-Assessment Form	Annual	As of 2017	GVIMS	GVIMS	Free of cost	-
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Sub-activity 1.1.2.3.2 Publish on Anvisa website a list of hospitals with ICU beds with high compliance to patient safety practices, including HAIs and AMR prevention and control actions.	Published list	Annual	As of 2018	GGTES	GVIMS	Free of cost	-
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Strategic Intervention ANVISA - Include the topic in capacity building programs promoted by Anvisa to SNVS and health services professionals and managers.

Strategic Action GGTES 1.2.1. Support and induce training on HAIs and AMR for healthcare professionals.

Sub-activity (Sub-Activities)	Outcome / Product	Quantity / Frequency	Timeframe	Involved parties	Responsible agency	Cost	Funding
1.2.1.1. Regulate the mandatory training at hiring and periodic updates on infection control and prevention and AMR to all healthcare professionals.							

Sub-activity 1.2.1.1.1 Adopt a resolution that requires mandatory training at hiring and periodically on patient safety, including HALs and AMR prevention and control to all healthcare professionals.	Resolution that requires mandatory training at hiring	1	2020	GGTES	GVIMS	Free of cost	-
Sub-activity (Sub-Activities)	Outcome / Product	Quantity/ Frequency	Timeframe	Involved parties	Responsible agency	Cost	Funding

Sub-activity 1.2.1.1.2 Define the minimum content for training at admission and periodically about Patient Safety, including HAIs and AMR prevention and control to all healthcare professionals	Defined contents	1	2 nd half of 2019	GGTES CNCIRAS CECIH/CMCIH	GVIMS	R\$22,500 (Estimated cost considering payment of daily rates and tickets to 1-day meeting with 0 participants from CNCIRAS to discuss the proposal.	ANVISA
Sub-activity 1.2.1.1.3 Publish Regulatory Instruction (<i>Instrução Normative - IN</i>) informing the minimum content defined for training at admission and periodically about Patient Safety, including HAIs and AMR prevention and control to all healthcare professionals	Publication of IN	1	1 st half of 2020	GGTES	GVIMS	Free of cost	-

1.2.1.2. Provide updated material about the topic for healthcare professionals

Sub-activity 1.2.1.2.1 Review or develop updated materials for healthcare professionals about the topic.	Reviewed or developed Material	Annual	2018-2021	GVIMS	GVIMS	To be defined (The cost with editing and printing will depend on the amount of materials)	ANVISA
Sub-activity 1.2.1.2.2 Publish updated material to healthcare professionals from the health services about the topic on Anvisa website.	Published Material	Annual	2018-2021	GVIMS	GVIMS	Free of cost	ANVISA

Sub-activity 1.2.1.2.3 Develop distance learning tutorials for capacity building of professionals who work in health services on adopting of HAIs and AMR prevention and control measures.	Developed distance learning tutorials	1	2018-2021	GGTES GGCIP PARTNERING ORGANIZATIONS	GVIMS	To be defined	ANVISA
Sub-activity 1.2.1.2.4 Provide distance learning tutorials for health services.	Provides distance learning tutorials	1	As of 2018	GGTES	GVIMS	Free of cost	-

1.2.1.3. Make strategic partnerships with the Ministry of Health, Trade Associations, professional associations and other agencies involved with the topic to develop training actions on HAIs and AMR.

Sub-activity 1.2.1.3.1 Prepare proposals for capacity building to be developed in partnership with Ministry of Health, trade associations, professional associations and other agencies involved with the topic	Proposed capacity building actions	1	1 st half of 2019	GGES CNCIRAS CATREM CECIH Ministry of Health, trade associations, professional associations, and other agencies involved with the topic	GVIMS	Free of cost	-
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Sub-activity 1.2.1.3.2 Present the proposals to strategic partners.	Presented proposals	1	2 nd half of 2019	GGTES	GVIMS	Free of cost	-
1.2.1.4. Support the training actions promoted by the State, District and Municipal Coordinators of Infection Control directed to healthcare professionals on infection prevention and control and AMR.							
Sub-activity 1.2.1.4.1 Provide technical material for dissemination in events promoted by states and cities.	Provides Material	Continuous	2018-2021	GVIMS	GVIMS	Free of cost	-
Sub-activity 1.2.1.4.2 Participate in state and municipal events.	Participation in events	Depending on the demand	2017-2021	GGTES	GVIMS	To be defined (Cost with tickets and daily rates depending on the demand).	ANVISA

Strategic Action GGTES 1.2.2. Support and induce training on HAIs and AMR for health regulation professionals of centers and state, municipal and district coordination offices of hospital infection control.

Sub-activity (Sub-Activities)	Outcome / Product	Quantity/ Frequency	Timeframe	Involved parties	Responsible agency	Cost	Funding
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Activity 1.2.2.1. Develop actions to promote capacity building of health regulation professionals in health services and State, District and Municipal Coordinators of Hospital Infection Control on infection control and AMR.

Sub-activity 1.2.2.1.1 Provide distance learning tutorials about Patient Safety to SNVS - HAIs and AMR	Provided distance learning tutorials	10	2 nd half of 2018 - 2021	GGTES GGCIP Partnering organizations	GVIMS	To be defined	ANVISA
Sub-activity 1.2.2.1.2 Technical visits and capacity building of health regulation staff and State and Municipal Coordinators.	Visit made	Depending on the demand	As of 2018	GGTES	GVIMS	To be defined (Cost with daily rates and tickets depending on the demand).	ANVISA

Pillar 2: Emphasize knowledge and the scientific basis by health regulation and research	
SPECIFIC OBJECTIVE GGES 2 - Emphasize knowledge and scientific basis by health regulation and investigation of infections and AMR in health services	
Strategic Interventions ANVISA – Define, in partnership with the Ministry of Health, the model of national network of laboratories for health regulation and monitoring of antimicrobial resistance	

Strategic Action GGES 2.1.1. Participate in the definition of the health regulation laboratory model for HAIs and AMR in health services.

Sub-activity (Sub-Activities)	Outcome / Product	Quantity/ Frequency	Timeframe	Involved parties	Responsible agency	Cost	Funding
Activity 2.1.1.1. Take part in the performance of a diagnosis of the current status of laboratory health regulation for HAIs and AMR.							
Sub-activity 2.1.1.1.1 Present the data of the AMR Sub-network to the group responsible for conducting the diagnostic assessment.	Report with information and data from the AMR subnetwork	1	1 st half of 2018	GVIMS GELAS	GVIMS	Free of cost	-
Sub-activity 2.1.1.1.2 Identify analytical needs for health regulation and monitoring of HAIs and AMR in health services.	Identified analytical needs	1	1 st half of 2018	GVIMS HOSPITAL INFECTION CONTROL ACTIONS	GVIMS	Free of cost	-

Activity 2.1.1.2. Take part in the redefinition of the health regulation model based on the diagnosis

Sub-activity 2.1.1.2.1 Participate in the discussions with the Ministry of Health about the redefinition of the laboratory health regulation model.	Participation in the meetings to discuss the topic.	Dependin g on the demand	2017-2020	GGTES MIN HEALT H GELAS	Min istr y of He alth	Free of cost	-
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SPECIFIC OBJECTIVE GGTES 2 -Emphasize knowledge and scientific basis by health regulation and investigation of infections and AMR in health services.

Strategic Intervention ANVISA - Work in coordination with the Ministry of Health to structure, qualify and manage the new national model of health regulation and monitoring of antimicrobial resistance.

Strategic Action GGTES 2.2.1. Support the structuring and management of the new model of health regulation laboratory for HAIs and AMR in health services.

Activity 2.2.1.1. Provide technical support to members of SNVS, CECIH and CMCIH in implementing the new model.

Sub-activity 2.2.1.1.1 Prepare Technical Notes to SNVS, CECIH, CMCIH including the guidance about the new model.	Technical Notes	1	After publicatio n of the new model	GGTES	GVIMS	Free of cost	-
Sub-activity 2.2.1.1.2. Carry out technical visits to SNVS, CECIH,	Visit to state or city	Depend on the demand	After publicatio n of the	GVIMS	GVIMS	To be defined (Cost of	ANVISA

CMCIH to provide instructions about the new model			new model			tickets and daily rates depending on the demand)	
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Activity 2.2.1.2. Develop actions that define that health services with ICU beds should have microbiology laboratory facilities that have the required minimum capacity to detect susceptibility profile, isolate and appropriately determine the pathogen.

Sub-activity 2.2.1.2.1 Review RDC 302/2005.	Reviewed Norm	1	2019	GGTES	GRECS	To be defined	ANVISA
Sub-activity 2.2.1.2.2 Technical Note to instruct about the topic	Technical Note	1	2019	GGTES	GVIMS	Free of cost	-
Sub-activity 2.2.1.2.3 Develop actions, together with the health regulation office, to check compliance with RDC 07/2010 or any other rule that replaces it concerning microbiology laboratory support at health services with ICU beds.	Action agreed with health regulation office	1	1 st half of 2019	GGTES CNCIRAS CATREM	GVIMS	To be defined (Cost will depend on agreed actions)	ANVISA

Strategic Action GGTES 2.2.2. Participate in the promotion of qualification of microbiology laboratories that provide services to hospitals in the country.

Sub-activity (Sub-Activities)	Outcome / Product	Quantity / Frequency	Timeframe	Involved parties	Responsible agency	Cost	Funding
Activity 2.2.2.1. Reinforce the importance of implementing best laboratory practices in microbiology laboratories that provide services to centers with ICU beds.							
Sub-activity 2.2.2.1.1. Update the rules that determine best practices in microbiology laboratories.	Updated rule	1	2020	GGTES CATREN	GRECS GVIMS	To be defined	ANVISA
Activity 2.2.2.2. Develop health regulation actions that support quality improvement in microbiology laboratories that serve centers with ICU beds.							
Sub-activity 2.2.2.2.1 Agree with the state health regulation offices on actions required to implement best laboratory practices by microbiology laboratories in healthcare enters with ICU beds.	Agreement with state health regulation offices	1	1 st part 2020	GGTES GGCOF	GVIMS	To be defined (Cost will depend on agreed actions)	ANVISA

Sub-activity 2.2.2.2.2. Disseminate technical materials directed to capacity building of microbiology laboratories	Disseminated materials	Continuous	2019-2020	GVIMS	GVIMS	Free of cost	-
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SPECIFIC OBJECTIVE GGES 2 - Emphasize knowledge and scientific basis by health regulation and investigation of infections and AMR in health services.

Strategic Action GGES 2.3.1. Monitor nationally the consumption of priority antimicrobials in adult ICUs in Brazilian hospital.

Sub-activity (Sub-Activities)	Outcome / Product	Quantity / Frequency	Timeframe	Involved parties	Responsible agency	Cost	Funding
Activity 2.3.1.1 Define the process to monitor nationally the consumption of priority antimicrobials in adult ICUs of Brazilian hospitals.							
Sub-activity 2.3.1.1.1 Define the process for monitoring nationally the consumption of priority antimicrobials (which can include, at least: variables, data sources, information to be generated, audience, frequency, form of dissemination and provision of information, implementation stages).	Monitoring Process	1	1 st half of 2018	GGES CATREM CNCIRAS	GVIMS	R\$93,750 (The cost was estimate considering three 1-day meetings with 25 participants from CATREM and CNCIRAS. Cost of daily rates and tickets per meeting: R\$31,250 - Total: 93,750).	ANVISA

Sub-activity 2.3.1.1.2 Define the priority antimicrobials considering the main resistance markers of antimicrobials used by health services.	List of priority antimicrobials for monitoring	1	1 st half of 2018	CATREM CNCIRAS GVIMS	GVIMS	Free of cost	-
Sub-activity 2.3.1.1.3 Define the data collection tool for monitoring consumption of priority antimicrobials.	Define collection tool	1	1 st half of 2018	GGTES	GVIMS	Free of cost	-

Activity 2.3.1.2 Design and provide a data collection tool for national monitoring of priority antimicrobial consumption in adult ICUs in Brazilian hospitals.

Sub-activity 2.3.1.2.1 Develop data collection tool.	Tool developed	1	1 st half of 2018	GGTES	GVIMS	Free of cost	-
Sub-activity 2.3.1.2.2 Create Technical Note to instruct about monitoring process.	Technical Note	1	1 st half of 2018	CATREM CNCIRAS GVIMS	GVIMS	Free of cost	-
Sub-activity 2.3.1.2.3 Publish Technical Note to instruct about the process.	Published Technical Note	1	1 st half of 2018	GVIMS	GVIMS	Free of cost	-

Activity 2.3.1.3 Publish the results of the national monitoring of priority antimicrobial consumption in adult ICUs in Brazilian hospitals.

Sub-activity 2.3.1.3.1 Monitor the reported consumption indicator.	Quarterly report with monitoring results	Quarterly	2019-2021	GVIMS	GVIMS	Free of cost	-
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Sub-activity 2.3.1.3.2 Prepare a bulletin with the results of the monitoring of priority antimicrobial consumption.	Prepared monitoring bulletin	Annual	As of 2020	GVIMS	GVIMS	Free of cost	ANVISA
Sub-activity 2.3.1.3.3 Publish the monitoring bulletin of priority antimicrobial consumption.	Monitoring bulletin published on ANVISA website	Annual	As of 2020	GVIMS	GVIMS	Free of cost	-

Strategic Action GGES 2.4.1. Develop an information system for reporting and data analysis of HAIs, AMR and outbreaks in health services in Brazil.

Sub-activity (Sub-Activities)	Outcome / Product	Quantity / Frequency	Timeframe	Involved parties	Responsible agency	Cost	Funding
Activity 2.4.1.1 . Define the requirements of the information system for reporting and data analysis of HAIs, AMR and outbreaks in Brazilian health services.							

Sub-activity 2.4.1.1.1 Hold meetings with CNCIRAS and CATREM to define the requirements of the information system for reporting and data analysis of HAIs, AMR and outbreaks in health services.	Document with definition of requirements	1	2 nd half of 2019	GGTES	CATREM CNCIRAS CECIHs CMCIHs	R\$31,250 (Cost estimated for tickets and daily rates for meetings with CNCIRAS and CATREM).	Anvisa
Sub-activity 2.4.1.1.2 Define with GGTIN the technical requirements of the information system and prepare a reference document.	Reference document including system requirements	1	2 nd half of 2019	GGTES	GGTIN	Free of cost	-
Activity 2.4.1.2 Develop an information system for reporting and data analysis of HAIs, AMR and outbreaks in Brazilian health services.							
Sub-activity 2.4.1.2.1 Survey the market for systems that meet the requirements presented in the reference document.	Market survey is performed	1	2 nd half of 2020	GGTES GGTIN	GVIMS	Free of cost	-
Sub-activity 2.4.1.2.2	Chosen system	1	2 nd half of 2020	GGTES GGTIN	GVIMS	Free of cost	-

Choose systems that meet the requirements in the Reference document.							
Activity 2.4.1.3. Collect data from HAIs, AMR and outbreaks from health services in the new system.							
Sub-activity 2.4.1.3.1 Train of Hospital Infection Control Coordinators on the use of the new system.	Hospital Infection Control Coordinators are trained on how to use the new system	Once	1 st half of 2021	GGTES INFECTION CONTROL COORDINATION	GVIMS	Free of cost	-
Sub-activity 2.4.1.3.2 Prepare the document for CCIHs with instructions about the use of the new system.	Prepared document	Once	1 st half of 2021	GGTES INFECTION CONTROL COORDINATION	GVIMS	Free of cost	-
Sub-activity 2.4.1.3.3 Dissemination of document to CCIHs containing information about the use of the new system on Anvisa website.	Disseminated document	Continuous	2 nd half of 2021	GGTES INFECTION CONTROL COORDINATION	GVIMS	Free of cost	-
Sub-activity 2.4.1.3.4 Articulate with Hospital Infection Control Coordinators the dissemination of the training on the new system to CCIHs of their states.	Capacity building disseminated to CCIHs	Continuous	2 nd half of 2021	GGTES INFECTION CONTROL COORDINATION CCIHs	GVIMS	Free of cost	-

Sub-activity 2.4.1.3.5 Provide the new system to collect data n HAIs, AMR and outbreaks in Brazilian health services.		Continuous	2 nd half of 2021	GGTES INFECTION CONTROL COORDINA TORS	GVIMS	Free of cost	-
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Strategic Action GGTES 2.4.2. Promote actions to qualify the reported data for HAIs and AMR.

Activity 2.4.2.1. Regulate the required reporting of outbreaks HAIs and AMR in health services..							
Sub-activity 2.4.2.1.1 Prepare a rule that regulates the required reporting of outbreaks, HAIs and AMR for health services of the country.	Prepared rule	1	2019	GGTES INFECTION CONTROL COORDINATIO N CNCIRAS WORKING GROUP TO PREPARE RULES ABOUT HAI PREVENTION AND CONTROL BEST PRACTICES	GVIMS	R\$100.000 (Estimated based on the creation of a working group to develop the rule, holding 4 one-day meetings with 20 members. Expenses with daily rates and tickets per meeting: : R\$25,000 - Total: 100,000)	ANVISA

Sub-activity 2.4.2.1.2 Publication of the rule that regulates the required reporting of outbreaks, HAIs and AMR for health services of the country.	Published rule	1	2019	GGTES	GVIMS	Free of cost	-
Sub-activity 2.4.2.1.3 Dissemination of the rule that regulates the required reporting of outbreaks, HAIs and AMR for health services of the country.	Rule disseminated on ANVISA website	1	2019	GGTES	GVIMS	Free of cost	-
Sub-activity 2.4.2.1.4 Monitor the reports of AMR in HAIs made by Health services in the country.	Quarterly Report of States – HAIs Published on ANVISA website	Quarterly	As of 2017	GVIMS	GVIMS	Free of cost	-
Sub-activity 2.4.2.1.5 Support the actions of Infection Control Coordinators to improve the quality of reported data.	Support to Coordinators	Continuous	As of 2017	GVIMS	GVIMS	Free of cost	-

Activity 2.4.2.2. Develop actions to create effective communication between microbiology laboratories of health services, LACENs, CCIHs, CECIHs and CMCIHs.

Sub-activity 2.4.2.2.1 Hold on site or virtual meetings with Hospital Infection Control Coordinators and LACENs.	Meeting	Every 6 months	2019-2021	GGTES CECIH LACEN	GVIMS	To be defined (Cost with tickets and daily rates, depending on number of meetings required and number of participants).	ANVISA
Sub-activity 2.4.2.2.2 Include in the rule about clinical laboratory the need to have effective communication between CCIH and laboratories about the results of susceptibility profiles that are reported by health services with ICU beds in a specific resolution.	Reviewed rule	1	2019	GGTES	GRECS	Free of cost	-

Sub-activity 2.4.2.2.3 Publish a Technical Note with all instructions to the involved parties, Coordinators, CCIHs and Laboratories of Health services with ICU beds.	Technical Note	1	2019-2021	GVIMS	GVIMS	Free of cost	-
Activity 2.4.2.3. Review periodically the National Diagnostic Criteria of HAIs							
Sub-activity 2.4.2.3.1 Create Working Groups to review the National Diagnostic Criteria for HAIs.	Document to define reviewed National Diagnostic Criteria for HAIs	Every 3 years	1st half 2017 1st half 2020	GGTES	GVIMS WORKING GROUPS WITH SPECIALISTS AND REPRESENTATIVES OF ASSOCIATIONS AND ENTITIES	To be defined (Cost with daily rates and tickets will depend on number of required meetings and number of participants in the working groups.	ANVISA
Sub-activity 2.4.2.3.2 Publication of National Diagnostic Criteria for HAIs.	Reviewed document of National Diagnostic Criteria for HAIs was published on ANVISA website	Every 3 years	1st half 2017 1st half 2020	GVIMS	GVIMS	R\$ 11.000,00 (Estimated cost based on Adegraf table for editing a 100-page booklet, with 10 charts, 10 tables and 10 photos).	-

Sub-activity 2.4.2.3.3 Disseminate broadly the National Diagnostic Criteria for HAIs - website ANVISA, health services, social media, trade associations and representative entities.	Dissemination of criteria	Periodically	2017-2021	GVIMS	GVIMS	Free of cost	-
Sub-activity 2.4.2.3.4 Build capacity of Infection Control Coordinators to apply the National Diagnostic Criteria for HAI when completing the report forms.	Training of Coordinators	Every 3 years	2 nd half 2017 and 1 st Half 2020	GVIMS CNCIRAS	GVIMS	Free of cost	-
Sub-activity 2.4.2.3.5 Agree with the Infection Control Coordinators to multiply training on application of National Diagnostic Criteria for HAIs to all CCIHs of states and Federal District.	Agreement with Coordinators	Every 3 years	2 nd half 2017 and 1 st Half 2020	GVIMS	GVIMS	Free of cost	-

Activity 2.4.2.4. Publish a Manual of the Epidemiological Health Regulation National System for HAIs and AMR.

Sub-activity 2.4.2.4.1 Prepare the manual describing the epidemiological health regulation national system for HAIs and AMR.	Prepared Manual	1	1 st half of 2018	GGTES CNCIRAS INFECTION CONTROL COORDINATION	GVIMS	To be defined (Cost with daily rates and tickets depending on the number of necessary meetings to prepare the manual).	ANVISA
Sub-activity 2.4.2.4.2 Publish the manual of epidemiological health regulation national system for HAIs and AMR on ANVISA website.	Manual published on ANVISA website	1	1 st half of 2018	GVIMS	GVIMS	R\$ 11.000,00 (estimated cost based on Adegraf table to edit a 100-page booklet with 10 charts, 10 tables and 10 photos).	ANVISA
Sub-activity 2.4.2.4.3 Disseminate broadly the epidemiological health regulation national system for HAIs and AMR – on ANVISA website, Health services, social media, trade associations and representative entities.	Disseminated manual of epidemiological health regulation national system for HAIs and AMR	1	2 nd half of 2018	GVIMS	GVIMS	Free of cost	-

Strategic Action GGTES 2.4.3. Consolidate the health regulation and outbreak monitoring system involving multi-resistant microorganisms in health services.

Activity 2.4.3.1. Develop the structure of national health regulation and monitoring of outbreaks for SNVS and health services.

Sub-activity 2.4.3.1.1. Create a Working Group to assess the current national health regulation and monitoring system for outbreaks in health services and propose the necessary changes.	Document with proposed national health regulation and monitoring system for outbreaks in healthcare.	1	1 st half of 2018	GGTES CATREM CNCIRAS	GVIMS	To be defined (daily rates and tickets depending on the number of necessary meetings and number of group participants).	ANVISA
Sub-activity 2.4.3.1.2. Restructure the flows, processes and tools related to health regulations, monitoring and timely investigation of outbreaks in health services as defined by the proposed document.	Defined flow, processes and tools	1	1 st half of 2018	GGTES CATREM CNCIRAS	GVIMS	Free of cost	-

Sub-activity 2.4.3.1.3. Prepare and publish the document with the guidelines for health regulation and monitoring of outbreak reports in health services.	Document with guidelines for health regulation, monitoring and reporting of outbreaks in health services.	1	2 nd half of 2018	GGTES CATREM CNCIRAS	GVIMS	R\$ 11.000,00 (estimated cost based on Adegraf table to edit a 100-page booklet with 10 charts, 10 tables and 10 photos).	ANVISA
Sub-activity 2.4.3.1.4. Broadly disseminate the document with the guidelines for health regulation and monitoring of outbreak reports in health services – ANVISA website, health services, social media, trade associations and representative entities.	Disseminated document.	1	2 nd half of 2018	GGTES CATREM CNCIRAS	GVIMS	Free of cost	-

Activity 2.4.3.2. Support technically the structuring of the Infection Control and Health Regulation Coordination of health services to execute health regulation and monitoring actions in situations of outbreaks..

Sub-activity 2.4.3.2.1 Build capacity, through videoconferences, of Hospital Infection Control Coordinators, on health regulations and monitoring of outbreaks in health services.	Videoconferences for capacity building of coordinators.	1	1 st half of 2019	GGTES INFECTION CONTROL COORDINATIO N	GVIMS	Free of cost	-
Sub-activity 2.4.3.2.2 Prepare a plan for capacity building to investigate outbreaks in health services for Hospital Infection Control Coordinators.	Plan of capacity building on investigation of outbreaks in health services.	1	1 st half of 2019	GGTES INFECTION CONTROL COORDINATIO N	GVIMS	Free of cost	-
Sub-activity 2.4.3.2.3 Implement a plan to build capacity on investigation of outbreaks in health services to Hospital Infection Control Coordinators	Implemented plan of capacity building on investigation of outbreaks in health services.	1	2 nd half of 2019 – 2021	GGTES INFECTION CONTROL COORDINATIO N	GVIMS	To be defined (Cost will depend on the prepared plan).	ANVISA

Sub-activity 2.4.3.2.4 Make technical visits to technically support State Coordinators of Hospital Infection Control Coordinators in health regulation and monitoring of outbreaks in health services.	Performed technical visits.	Depending on the demand	As of 2019	GGTES INFECTION CONTROL COORDINATIO N	GVIMS	To be defined (daily rates and tickets depending on the number of required technical visits).	ANVISA
Activity 2.4.3.3. Monitor the occurrence of outbreaks associated with multi-resistant microorganisms in health services.							
Sub-activity 2.4.3.3.1 Support CECIHs in investigating outbreaks in health services.	Support in investigations	Depending on the demand	As of 2019	GGTES INFECTION CONTROL COORDINATIO N	GVIMS	To be defined (daily rates and tickets depending on the number of required technical visits).	ANVISA
Sub-activity 2.4.3.3.2 Coordinate the investigations of outbreaks that represent a health regulation emergency.	Coordination of investigation	Depending on the demand	As of 2019	GGTES INFECTION CONTROL COORDINATIO N e-VISA	GVIMS	Free of cost	-

Sub-activity 2.4.3.3.3 Publish the results of monitoring the occurrence of outbreaks associated with multi-resistant microorganisms in health services.	Monitoring bulletin published on ANVISA website	Annual	As of 2020	GGTES	GVIMS	Free of cost	ANVISA
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SPECIFIC OBJECTIVE GGTES 2 - Emphasize knowledge and scientific basis by health regulation and investigation of infections and AMR in health services.

Strategic Interventions ANVISA - Promote studies and scientific research projects that can support the knowledge related to antimicrobial resistance

Strategic Action GGTES 2.5.1. Promote studies and scientific research projects that can support the knowledge related to antimicrobial resistance in health services..

Sub-activity (Sub-Activities)	Outcome / Product	Quantity / Frequency	Timeframe	Involved parties	Responsible agency	Cost	Funding
Activity 2.5.1.1. Survey and prioritize the study needs related to AMR in health services to be included in ANVISA research plan.							
Sub-activity 2.5.1.1.1 Survey with CATREM, CNCIRAS and Infection Control Coordinators and other partners about the need to carry out studies.	List of studies needed	1	2018	GGTES CATREM CNCIRAS INFECTION CONTROL COORDINATI ON	GVIMS	Free of cost	-

Sub-activity 2.5.1.1.2 Present the needs of studies and research projects related to antimicrobial resistance in health services to be included in ANVISA research list.	List of studies needed	1	2018	GGTES GGCIP	GVIMS	Free of cost	-
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Activity 2.5.1.2. Carry out national studies of prevalence of HAIs and AMR..							
Sub-activity 2.5.1.2.1 Develop a national prevalence study of infections and AMR to all ICUs.	Report of prevalence	Annual	As of 2018	GGTES CATREM CNCIRAS	GVIMS	Free of cost	-
Activity 2.5.1.3. Support the performance of studies about the cost of HAIs and AMR in health services.							
Sub-activity 2.5.1.3.1 Prepare a research proposal.	Proposed research	1	2018	GGTES CATREM CNCIRAS GGCIP	GVIMS	Free of cost	-
Sub-activity 2.5.1.3.2 Present the proposed research study to funding agencies at the government level.	Presentation of the proposed research project	1	2018	GGTES GGCIP	GVIMS	Free of cost	-
Activity 2.5.1.4. Support the performance of national studies that assess mortality and morbidity related to HAIs and AMR.							
Sub-activity 2.5.1.4.1 Prepare a research study proposal	Research study proposal	1	2020	GGTES CATREM CNCIRAS GGCIP	GVIMS	Free of cost	-
Sub-activity 2.5.1.4.2 Present the research study proposal to the funding agencies at government level	Presentation of the proposed research project	1	2020	GGTES GGCIP	GVIMS	Free of cost	-

Pillar 3: Reduce the incidence of infections with effective measures of sanitation, hygiene and infection prevention

Strategic Action GGTES 3.1.1. Define the competences of SNVS to prevent and control HAIs.

Sub-activity (Sub-Activities)	Outcome/Product	Quantity / Frequency	Timeframe	Involved parties	Responsible agency	Cost	Funding
Activity 3.1.1.1. Carry out a diagnostic analysis of the current status of HAIs prevention and control in the country.							
Sub-activity 3.1.1.1.1 Prepare a document with the current status of infection control.	Document with the diagnosis	1	1st half of 2018	GGTES CNCIRAS CECIH	GVIMS	Free of cost	-
Activity 3.1.1.2. Identify SNVS competences in the national policy of infection prevention and control							
Sub-activity 3.1.1.2.1 Survey SNVS concerning their competences on infection prevention and control.	Survey SNVS	1	2 nd half of 2018	GGTES GGCOF VISAS INFECTION CONTROL COORDINATION	GVIMS GGCOF	Free of cost	-
Sub-activity 3.1.1.2.2 Prepare report with competences on infection prevention and control.	Report of mapped competences	1	2 nd half of 2018	GGTES GGCOF VISAS INFECTION CONTROL COORDINATION GELAS	GVIMS GGCOF	Free of cost	-

Strategic Action GGTES 3.1.2. Discuss with the Ministry of Health about HAIs in the national policy of infection prevention and control.

Activity 3.1.2.1. Design proposals of national HAIs prevention and control actions to include in the national policy of infection prevention and control.

Sub-activity 3.1.1.2.1 Discuss with the involved parties the topic on national actions for HAIs prevention and control.	Draft proposal	1	1 st half of 2019	GGTES VISAS INFECTION CONTROL COORDINATION REPRESENTATIVE ENTITIES TRADE ASSOCIATIONS	GVIMS	Free of cost	-
Sub-activity 3.1.1.2.2 Prepare the document with the proposed national actions for HAIs prevention and control to be included in the national policy of infection prevention and control.	Prepared proposal	1	1 st half of 2019	GGTES	GVIMS	Free of cost	-

Activity 3.1.2.2. Present to GTVisa the competences of SNVS in the proposal of national actions of HAIs prevention and control

Sub-activity 3.1.2.2.1 Set the agenda for a meeting with GTVISA.	Set agenda	1	1 st half of 2019	GGTES GGCOF	GVIMS	Free of cost	-
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Sub-activity 3.1.2.2.2 Present to GTVISA the proposal for national actions of HAIs prevention and control to be included in the national policy of infection control and prevention	Minutes of the meetings with GTVISA	1	1 st half of 2019	GGTES GGCOF GTVISA	GVIMS	Free of cost	-
Activity 3.1.2.3. Discuss and present to Ministry of Health a proposal of national actions for HAIs prevention and control.							
Sub-activity 3.1.2.3.1 Schedule a meeting with the Ministry of Health to discuss the topic.	Scheduled meeting	1	1 st half of 2019	GGTES COPES	GVIMS	Free of cost	-
Sub-activity 3.1.2.2.1 Submit the proposal of national actions on infection control and prevention to the Ministry of Health.	Minutes of the meeting with Ministry of Health	1	1 st half of 2019	GGTES COPES MS	GVIMS	Free of cost	-

Strategic Interventions ANVISA - Strengthen the implementation of infection prevention and control measures in health services

Strategic Action 3.2.1 Develop strategies to improve the assessment capabilities and the actions of SNVS and the Coordinators of Hospital Infection Control on infection prevention and control measures adopted by state and municipal levels and health services.

Sub-activity (Sub-Activities)	Outcome / Product	Quantity / Frequency	Timeframe	Involved parties	Responsible agency	Cost	Funding
Activity 3.2.1.1 Promote national events to health regulation managers and technicians and Coordinators of Hospital Infection Control about infection prevention and control actions directed to all involved parties.							
Sub-activity 3.2.1.1.1 Hold an international seminar: Risk Reduction for Patient Quality and Safety in Health services.	International Seminar	Every 2 years	2017 2019 2021	GGTES CEVEC	GVIMS	R\$426,600 (Estimated cost based on the seminar held in 2016. R\$200,000 spent on tickets – GGTES budget and the remaining used for organizing the event)	ANVISA
Sub-activity 3.2.1.1.2. Perform videoconferences with Infection Control and Health Regulation Coordinators to discuss the topic	Videoconference	Every 6 months	As of 2017	GGTES	GVIMS	Free of cost	-

Activity 3.2.1.2. Support technically the capacity building of professionals from SNVS and Coordinators of Hospital Infection Control on HAIs and AMR prevention and control.							
Sub-activity 3.2.1.2.1. Prepare distance learning courses about the topic to SNVS and Hospital Infection Control Coordinators.	Distance learning courses done	1	2018	GGTES GGCIP PARTNERING ORGANIZATIONS	GVIMS	R\$273,500 (Cost estimated based on other projects).	ANVISA
Sub-activity 3.2.1.2.2. Provide distance learning courses to SNVS and Hospital Infection Control Coordinators.	Distance learning courses provided	Continuous	2018 - 2021	GGTES	GVIMS	Free of cost	-
Activity 3.2.1.3. Promote periodic reporting of updated data on HAIs and AMR reports.							
Sub-activity 3.2.1.3.1. Prepare a Patient Safety and Quality in Health Services Bulletin: Assessment of national indicators of HAIs and AMR.	Prepared Bulletin: Patient Safety and Quality in Health services Bulletin: Assessment of national indicators of HAIs and AMR.	Annual	2017 - 2012	GVIMS CNCIRAS	GVIMS	R\$55.000 (Costs for editing 5 bulletins annually. Cost based on Adegraf table for editing a 100-page booklet with 10 charts, 10 tables and 10 photos)	ANVISA

Sub-activity 3.2.1.3.2. Publication of Bulletin on Anvisa website	Bulletin published	Annual	2017-2021	GVIMS	GVIMS	Free of cost	-
Sub-activity 3.2.1.3.3. Publication of bulletins prepared by Hospital Infection Coordinators on ANVISA website.	Bulletins published	Annual	2017-2021	GVIMS	GVIMS	Free of cost	-

Strategic Action 3.2.2 Strengthen the decentralization of infection prevention and control actions to municipal and state levels.

Sub-activity (Sub-Activities)	Outcome / Product	Quantity/ Frequency	Timeframe	Involved parties	Responsible agency	Cost	Funding
Activity 3.2.2.1 Agree with Tripartite Managerial Committee (CIT) on the effective definition of the roles of State Coordinators of Hospital Infection Control.							
Sub-activity 3.2.2.1.1. Propose the topic in a meeting with CIT.	Include the topic in the agenda with CIT	1	1 st half of 2018	GGTES CIT GGCOF	GVIMS	Free of cost	-
Sub-activity 3.2.2.1.2. Submit the proposal showing the importance of CECIH for effective infection prevention and control.	Submission of the topic in a meeting with CIT	1	1 st half of 2018	GGTES CIT GGCOF	GGTES	Free of cost	-
Activity 3.2.2.2. Encourage the effective creation of Municipal Coordinators of Hospital Infection Control at the level of Bipartite Managerial Committees (CIBs).							
Sub-activity 3.2.2.2.1. Request CIT to take the agreement to CIBs.	Include the topic in CIBs agenda	1	2019	GGTES GGCOF CIT	GGTES	Free of cost	-
Sub-activity 3.2.2.2.2. Instruct the Infection Control Coordinators to take the demand to CIB in their states	Memo with the instructions of meetings to CECIH	1	2019	GVIMS	GVIMS	Free of cost	-

Sub-activity 3.2.2.2.3. Support CECIH, if requested, in presenting the demand to CIB.	Support CECIH	Depending on the demand	2019-2020	GVIMS CECIH	CECIH	Free of cost	-
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Strategic Action 3.2.3. Promote the implementation of the National Program for the Prevention and Control of HAIs (PNPCIRAS)

Sub-activity (Sub-Activities)	Outcome / Product	Quantity / Frequency	Timeframe	Involved parties	Responsible agency	Cost	Funding
3.2.3.1. Disseminate fully PNPCIRAS.							
Sub-activity 3.2.3.1.1 Disseminate PNPCIRAS 2016-2020 on ANVISA website.	Program disseminated	Continuous	2017-2020	GVIMS	GVIMS	Free of cost	-
Sub-activity 3.2.3.1.2	Program disseminated	Continuous	2017-2020	GVIMS	GVIMS	Free of cost	-

Emphasize PNPCIRAS in national and local events.							
Sub-activity 3.2.3.1.3 Introduce the program to SNVS through videoconferences.	Videoconference	1	2 nd half of 2017	GGTES	GVIMS GRECS	Free of cost	-
3.2.3.2. Support CECIHs in developing and implementing the State Programs for Prevention and Control of HAIs (PEPCIRAS), aligned with PNPCIRAS.							
Sub-activity 3.2.3.2.1. Publish the document that contains instructions to create the Municipal Coordinator of Infection Control.	Document of Instructions	1	2018	GVIMS CNCIRAS	GVIMS	Free of cost	-
Sub-activity 3.2.3.2.2. Support CECIHs in the creation of t PEPCIRAS (if not available yet)	Support in creating PEPCIRAS	Depending on the demand	As of 2018	GVIMS CECIH	GVIMS	Free of cost	-

Sub-activity 3.2.3.2.3. Support CECIHs to implement the action plans of PEPCIRAS.	Support to implement action plans	Depending on the demand	As of 2018	GVIMS CECIH	GVIMS	Free of cost	-
3.2.3.3. Propose the implementation of a transfer and transportation protocol for patients colonized/ infected with multi-resistant microorganisms in health services.							
Sub-activity 3.2.3.3.1. Hold preliminary technical meetings to discuss the topic with specialists.	Minutes of the documents: 1 – Protocol of transfer; 1 – Technical Note; 1 – Instructions on cleaning and disinfection of mobile and transportation pre-hospital services.	2	1 st half of 2019	GGTES REPRESENTATIVES OF TRADE ASSOCIATIONS AND REPRESENTATIVE ORGANIZATIONS CNCIRAS SPECIALISTS ON THE TOPIC	GVIMS	To be defined (daily rates and tickets depending on the number of required meetings and number of participants.)	ANVISA
Sub-activity 3.2.3.3.2. Prepare model for transfer protocol.	Protocol Model	1	2 nd half of 2019	GGTES CATREM CNCIRAS	GVIMS	Free of costs	-

Sub-activity 3.2.3.3.3. Prepare instructions on cleaning and disinfection of intra-hospital mobile and transportation pre-hospital services	Cleaning instructions	1	1 st half of 2020	GVIMS CATREM CNCIRAS	GVIMS	Free of costs	-
Sub-activity 3.2.3.3.4. Prepare Technical Note with instructions to the Coordinators to prepare and implement local protocols for patient transfers.	Technical Note	1	1 st half of 2020	GVIMS CATREM CNCIRAS INFECTION CONTROL COORDINATION	GVIMS	Free of costs	-
Sub-activity 3.2.3.3.5. Published documents on ANVISA website	Publication of documents	1	1 st half of 2020	GVIMS	GVIMS	Free of costs	-
Sub-activity 3.2.3.3.6. Broadly disseminate the documents ANVISA website, health services, trade associations and	Disseminated documents: 1 – Transfer Protocol; 1 – Technical Note; 1 – Cleaning and	1	1 st half of 2020	GVIMS	GVIMS	Free of costs	-

representative
entities

Disinfection
Instructions

Pillar 4: Use rationally antimicrobial medications for human and animal health

Strategic Interventions ANVISA - Define strategies to qualify the use of antimicrobials in health services

Strategic Action GGES 4.1.1 Promote the implementation of programs for rational use of antimicrobials in health services.

Sub-activity (Sub-Activities)	Outcome / Product	Quantity / Frequency	Timeframe	Involved parties	Responsible agency	Cost	Funding
Activity 4.1.1.1 1 Publish and disseminate the National Guidelines for the Management Program of Antimicrobial Use in Health services							
Sub-activity 4.1.1.1.1 Publish and disseminate the National Guidelines for the Management Program of Antimicrobial Use in Health services on ANVISA website	Published National Guidelines for the Management Program of Antimicrobial Use in Health services	1	2 nd half of 2017	GGES	GVIMS ASCOM	R\$ 11.000 (Cost based on Adegraf table for editing a 100-page booklet with 10 charts, 10 tables and 10 photos)	ANVISA
Sub-activity 4.1.1.1.2. Disseminate to trade associations and representative entities that work with the topic (ABIH, AMIB, CFF, CFM, SBI,	Disseminated document	1	2 nd half of 2017	GVIMS	GVIMS	Free of cost	-

APUA, ISMP, among others)							
Activity 4.1.1.2. Produce and distribute the communication material for rational use of antimicrobials in health services							
Sub-activity 4.1.1.2.1. Prepare quick reminders to be disseminated in health services.	Communication Material(folders, posters)	1	1 st half of 2018	GVIMS	GVIMS	Free of cost	-
Sub-activity 4.1.1.2.2. Distribute it to Hospital Infection Control Coordinators.	Material sent to CECIHs	1	1 st half of 2018	GVIMS	GVIMS	Free of cost	-
Sub-activity 4.1.1.2.3. Ask Hospital Infection Control Coordinators to distribute it to the health services in their states.	Material sent to CECIHs	1	1 st half of 2018	GVIMS CECIH CMCIH	GVIMS	Free of cost	-
Sub-activity 4.1.1.2.4. Distribute materials in events (Congresses, Seminars, among others).	Material distributed in events	Continuous	2018 - 2021	GVIMS	GVIMS	Free of cost	-

Activity 4.1.1.3. Define actions to promote the implementation of protocols for rational use of antimicrobials in ICUs, as provided by RDC 07/2010.

Sub-activity 4.1.1.3.1. Work with Hospital Infection Control Coordinators to support health services in the implementation of antimicrobial use protocols in ICUs.	Agreement with health regulation centers	1	1 st half of 2019	GVIMS	GVIMS	Free of cost	-
Sub-activity 4.1.1.3.2. Agree with Health regulation agencies in the states to inspect the implementation of the antimicrobial use protocol in ICUs, in compliance with RDC 07/2010.	Agreement with health regulation centers	1	1 st half of 2019	GGTES VISAS INFECTION CONTROL COORDINATI ON GGCOF	GVIMS GGCOF	Free of cost	-
Sub-activity 4.1.1.3.3. Agree with Hospital Infection Control Coordinators to monitor the implementation of antimicrobial use protocols in ICUs of hospitals.	Implemente d antimicrobial use protocol in ICUs of Brazilian hospitals	1	2 nd half of 2019	GGTES INFECTION CONTROL COORDINATI ON	GVIMS	Free of cost	-

Monitoring Plan

Planning Element (Activities related to strategic interventions defined in the Strategic Plan)	Indicator	Calculation Method	Goal	Frequency of data assessment	Data source	Responsible agent
1.1.1.2 Periodically disseminate to the community the updated data of HAls and AMR in health services.	Bulletin directed to the community as a whole with easy to understand language with public data on HAls and AMR published on ANVISA website	Not applicable	1 bulletin published every year	Annual (As of 2018)	Anvisa website	GVIMS
1.1.2.1. Create partnerships with the Ministry of Health and of National Regulatory Agency for Private Health Insurance and Plans (ANS) National Agency to offer awareness actions to healthcare managers.	Proposed project presented to Ministry of Health and ANS	Not applicable	Proposed project presented to Ministry of Health and ANS by June 2019.	Once (up to July 2019)	Minutes of meeting with Ministry of Health Minutes of meeting with ANS	GGTES
1.1.2.3. Disseminate the list of hospitals with ICU beds that have high compliance rates with patient safety practices, including HAI prevention and control and AMR.	List published on ANVISA website	Not applicable	List published on ANVISA website on an annual basis as of 2018	Annual (As of June 2018)	Anvisa website	GVIMS

Planning Element (Activities related to strategical interventions defined in the Strategic Plan)	Indicator	Calculation Method	Goal	Frequency of data assessment	Data source	Responsible agent
Activity 2.3.1.3 Publish the results of the national monitoring of priority antimicrobial consumption in adult ICUs in Brazilian hospitals.	Bulletin of monitoring of antimicrobial consumption in adult ICUs published on ANVISA website	Not applicable	Bulletin of monitoring of antimicrobial consumption in adult ICUs published on ANVISA website in 2020	Annual (As of June 2020)	Anvisa website	GVIMS
Activity 2.4.2.4. Publish a Manual of the Epidemiological Health Regulation National System for HAIs and AMR.	Published Manual of the Epidemiological Health Regulation National System for HAIs and AMR	Not applicable	Bulletin of monitoring of antimicrobial consumption in adult ICUs published on ANVISA website up to June 2019	Once (July 2018)	Anvisa website	GGTES
Activity 2.4.3.3. Monitor the occurrence of outbreaks associated with multi-resistant microorganisms in health services.	1 st monitoring bulletin published on ANVISA website	Not applicable	1 st monitoring bulletin published on ANVISA website up to June 2020	Once (July 2020)	Anvisa website	GGTES

Planning Element (Activities related to strategical interventions defined in the Strategic Plan)	Indicator	Calculation Method	Goal	Frequency of data assessment	Data source	Responsible agent
Activity 3.1.1.2. Identify SNVS competences in the national policy of infection prevention and control.	Report of mapped competences	Not applicable	Report of mapped competences presented to GTVISA by 2018.	Once (up January 2019)	Minutes of GTVISA meeting	GGTES
Activity 3.1.2.3. Discuss and present to Ministry of Health a proposal of national actions for HAIs prevention and control.	Draft proposal of HAIs component on the national policy of infection prevention and control	Not applicable	Draft proposal discussed with Ministry of Health up to June 2019	Once (July 2019)	Minutes of meeting with Ministry of Health	GGTES
Activity 3.2.1.1 Promote national events to health regulation managers and technicians and Coordinators of Hospital Infection Control about infection prevention and control actions directed to all involved parties.	International seminar: Risk Reduction for Patient Quality and Safety in Health services	Not applicable	International seminar: Risk Reduction for Patient Quality and Safety in Health services held annually	Every two years	Lists of attendees in the seminars.	GGTES

Planning Element (Activities related to strategical interventions defined in the Strategic Plan)	Indicator	Calculation Method	Goal	Frequency of data assessment	Data source	Responsible agent
3.2.3.2. Support CECIHs in developing and implementing the State Programs for Prevention and Control of HAIs (PEPCIRAS), aligned with PNPCIRAS.	Implemented State Programs of HAIs Control and Prevention	Number of implemented State Programs of HAIs Control and Prevention / 27	Up to February 2021, 90% of the states with an implemented State Program of HAI Prevention and Control	Once (up to February 2021)	Report provided on the ANVISA website	GGTES
Activity 4.1.1.1 Publish and disseminate the National Guidelines for the Management Program of Antimicrobial Use in Health services	Published National Guidelines for the Management Program of Antimicrobial Use in Health services	Not applicable	Guidelines published online up to December 2017	Once (2 nd half of 2017)	Available on Anvisa web page	GGTES

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