

Biosecurity protocol for the reopening of libraries of the National Autonomous University of Mexico (UNAM) Library and Information System, following the precautionary confinement connect to the pandemic caused by SARS-CoV-2

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Introduction

Type 2 coronavirus, which causes severe acute respiratory syndrome (SARS-CoV-2), is an emerging virus and is the etiological agent in humans of the disease coronavirus (COVID-19). COVID-19 was categorized on 30 January 2020 by the World Health Organization (WHO) as a "Public Health Emergency of International Interest" and characterized as a pandemic on 11 March 2020. To date, no specific antiviral treatment or a safe vaccine is available.

This protocol presents the actions to be taken for the resumption of the activities of libraries that include the UNAM Library and Information System (SIBIUNAM), in line with the "General Guidelines for return to university activities within the framework of the pandemic", published on 18 June 2020 in the UNAM-DGCS-528 Bulletin; thus, this document includes various security guidelines that focus on spaces within the university campus and establish safe conditions for the health of the staff, users and external visitors, which will be implemented at different stages without affecting the stability of the documentary collections.

This protocol considers the disinfection of buildings, office equipment and collections, how it should be carried out and who will be responsible for carrying it out. Furthermore, the adaptation of the spaces is addressed to promote the implementation of hygiene and follow-up measures, and specific guidelines are proposed on the behaviors to be followed to mitigate the spread of SARS-Co-V-2 during daily work in Library and Information Services of UNAM (SIBIUNAM) libraries so that they have the possibility of adapting their own procedures and behaviors.

It also details the actions to be taken for the disinfection of bibliographic and documentary material that re-enters the information centers, for which it is suggested to prioritize a quarantine of at least fourteen days before their reintegration into the collections or failing that, to carry out a chemical disinfection of high demand materials that need to be put into service immediately.

As regards the reopening of the facilities to provide face-to-face service to users, it is considered that this should be gradual and the rules and resources that libraries must have for this purpose are determined. It is pertinent to note that the information around this pandemic changes daily, so this protocol will remain under constant review and be subject to change whenever new data is available around the SARS-CoV-2 coronavirus.

The dissemination of these actions will enable the communication to the UNAM library community and the general public of the new practices that will ensure the physical safety of users and staff of these important university units.

Phases of Physical Re-Opening

In order to ensure optimal hygiene conditions in SIBIUNAM libraries, once the preventive confinement period has ended, it is necessary for the physical reopening of the facilities to be carried out gradually and the following phases shall be considered:

Phase 1. Disinfection of Buildings Prior to Physical Re-Opening

This disinfection must be carried out by specialized personnel empowered and approved by the relevant health institutions for this treatment. Providers offering this service must meet the following requirements:

- a. Be registered in UNAM's provider directory.
- b. Submit technical and economic proposals of your service, including an estimate per square meter.
- c. The analysis of the proposals will provide that procedures and materials are inert and harmless to human health and to prevent the deterioration of the ancient and contemporary collections of libraries. These processes should include disinfection of furniture and equipment, as well as the application of chemical agents in the environment to the interior of the property by micro-nebulization, to avoid reaching a level of humidity that affects the collections.
- d. After the disinfection process, as soon as sufficient time has passed for the disinfectant action of the applied substances to fade, the same company will perform the cleaning of surfaces to remove any residue that may affect the health of users, staff and external visitors.
- e. The supplier shall be obliged to provide a certificate ensuring the effectiveness of its processes, as well as any maintenance recommendations it deems relevant.

Phase 2: Adaptation of Spaces

Once the disinfection of the property has been carried out, the necessary actions will be initiated for the modification of spaces, placement of signs and physical barriers, as well as the installation of the devices that favor the hygiene and safety measures of the library staff during the working day:

- a. Place minimum distance marks of 1.8 m at the entrances and exits of the building, book reception modules and treatment areas, as well as those areas where users may queue to enter.
- b. Adapt the furniture so that the spaces are reduced to one third of its capacity.
- c. Distribute 70% ethyl alcohol antibacterial gel dispensers in all areas and departments.
- d. Strategically dispose of special containers to dispose of the protective material provided to staff, and report on how this waste is to be delivered to the instance designated by UNAM for proper destruction:
 - a. Facemasks
 - b. Latex gloves
 - c. Nitrile gloves
 - d. Medical masks
 - e. Face shields
 - f. Foot coverings
 - g. Overalls

The correct use of these materials will serve as an immediate physical barrier for the protection of personnel in carrying out their tasks, so their use will be mandatory until the official provisions on the matter are amended.

Phase 3: Re-opening of the Building for Staff

Where the actions of Phases 1 and 2 have been completed, the return of staff to work in the library shall be carried out according to the following considerations.

At the initial opening only personnel who are not within the at-risk population (older adults and persons of any age with underlying medical conditions) will be admitted to work in the building; as far as possible, staff attending should engage in low mobility activities within the premises to reduce the flow of people and materials (official documents, office supplies, personal items) and thus reduce the risk of infection. This phase includes:

- a. Establish work attendance schedules in order to concentrate fewer staff at the library premises.
- b. Establish material reception times (loan, new acquisition and rebinding under scheduled appointment) to regulate the overcrowding of people in specific areas.
- c. Arrange personal disinfection and clearance marking inputs within the premises:
 - a. 70% ethyl alcohol gel available to staff in all areas of the library
 - b. Masks and face shields for all staff
 - c. Overalls, nitrile gloves, face masks and face shields for staff in charge of handling and disinfecting books
- d. In the case of shared spaces and transit sites such as elevators, internal stairs, corridors, dining rooms and toilets, social distancing measures should be retained; elevators may only be used by persons with reduced mobility, one at a time and for freight transport. Transit on stairs and corridors shall not be carried out groups, rather one in a row, trying to maintain a distance not less than 1.8 m.
- e. Raise awareness of staff through information workshops, such as:
 - a. Correct use of physical barriers and social distancing measures
 - b. Good living practices in spaces and working hours
 - c. Handling and transit of personal items
 - d. Conservation of collections
 - e. Daily cleaning and hygiene measures of spaces and furniture

The correct dissemination of these biosecurity guidelines and their continuous and permanent monitoring will make it possible to mitigate the impacts of COVID-19 on the health of staff preparing the work teams for the next phase, in which in-person user services will begin, all in an adapted and resilient environment, with the ability to explain to users the new forms of behavior and use of library services.

Phase 4: Re-opening of the Building for Users

At the start of Phase 4, users will be allowed to enter the library building for activities (this considering that the facilities will not be open to be used freely). It should be noted that face-to-face support and services will be restricted until social distancing conditions permit, i.e. where health indicators show that the risk of SARS-CoV-2 infection has been minimized.

Until then, services will be provided via closed stacks, with home loan scheduled by appointments. In this way:

- a. Entry to and exit from the building as well as to internal areas should take place through different doors; if the area has only one entrance, it should not be blocked and will always remain open to avoid concentration of people and handling handles.
- b. Entry to and exit from the building shall be made one person at a time, maintaining a minimum distance of 1.8 m; when entering users must wait for access to be authorized, and whenever their body temperature is verified, if it is greater than 38°C, they will not be able to access the library and will be recommended to seek medical assistance or be helped by calling emergency services if necessary.
- c. The number of tables and chairs will be reduced to accommodate only one third of the number of regular users in reading rooms, maintaining a minimum distance of 1.8 m.
- d. The maintenance staff shall perform frequent cleaning of furniture and equipment.

- e. The cleaning and hygiene of personal objects will be the responsibility of their owner.
- f. Respect signage concerning social distancing at the main service desk, service countries, cashiers' desks, the photocopying service and inquiry desk.
- g. Limit space usage to one person per 3m².
- h. Avoid the use of beards, as they prevent the correct functioning of facemasks.
- i. The use of jewelry, accessories and ties will be restricted to reduce the risk of increasing contact surfaces with the body.

It is imperative that the library staff adhere to these guidelines to support their example by transmitting them to users.

Disinfection of Books Returning from Home Loans, or from Acquisitions, Rebinding, Restoration or Transit

To ensure the hygiene of books in circulation it is necessary to assign and adapt an area called the 'Disinfection Area', in which interventions will be made to disinfect materials and safeguard them before returning them to the shelves, all with the aim of ensuring that their handling and consultation are safe for users and library staff.

The following describes how this area works:

- a. The following spaces must be allocated in the "Disinfection Area":
 - a. Reception area or initial deposit
 - b. Free transit areas
 - c. Disinfection zone
 - d. Storage area
 - e. Sanitary and waste area
 - f. Isolation bookshelf

All areas of the Disinfection Area will maintain a continuous flow of ventilation. The following materials, equipment and substances are required for these processes:

- Cold micro-nebulizer. It is a tool that will facilitate the application of the disinfectant product, since the droplet size obtained in the spray favors the impregnation of the product throughout the book without providing excessive moisture.
- Ethyl alcohol 70%. To perform the precautionary disinfection of books when entering the library, through a first spraying.
- Isopropyl or isopropanol alcohol. This will serve as a carrier in which the active agent is diluted and which in turn eliminates some microorganisms, such as fungi, viruses and bacteria.
- Quaternary ammonium. This is the active agent that will be used diluted in the carrier in order to disinfect books from contemporary collections, never for older works.
- Personal protective equipment: overalls, face shields, masks, latex or nitrile gloves.

Colour Code for Disinfection Zones

Once the space for the Disinfection Area has been designated, it will be divided by zones identified by the following color code:

Red 1: Zone for the reception and triaging of materials

Red 2 : Accelerated disinfection area (48 hours) by chemical treatment

Blue: Quarantine area for disinfection of materials for a set period (14-day quarantine)

Yellow: Area for resting materials after chemical disinfection

Green: Area for the preparation of the materials after their disinfection and before reintegration into the collection

To control the interventions made in the Disinfection Area it will be essential to keep track of the books to have an accurate control of their location, as well as the type of disinfection they received, whether they were quarantined for 14 days or an accelerated disinfection by chemical processes.

The following illustrates the minimum data to consider in a tab for "Disinfection Log":

Disinfection Log				
Book data				
Title				
Author				
Classification				
Acquisition No.				
Date of Entry	Type of Disinfection			Date of Exit
	14 Day Quarantine	Chemical		
Received by		Substances applied		Delivery

Make sure to register status in the appropriate comprehensive library automation system (ALEPH or KOHA). The physical file should be placed between the cover and the front page.

Each of the processes that will take place in these areas is explained in detail below:

1.1 Red Zone I Reception

This area will be located at the entrance of the buildings where the libraries are located and will be the site where books from home loan, rebinding, new acquisitions and restorations in transit are received initially.

- a. The entry must be marked with 1.8m spacings in order for users and external visitors to respect the minimum safety distance.
- b. Avoid contact between the person delivering the book and the recipient, using previously installed physical barriers and personal safety equipment.
- c. The books received will be disinfected immediately in the receiving module, by cold misting of ethyl alcohol 70% before handling.
- d. Returned books will be registered in the ALEPH System and placed in a cart designated only for collection and transport to the disinfection area. They should not be isolated or placed in plastic bags, envelopes or sealed containers.
- e. Registered and sprayed books will be placed in carts for transport to the Disinfection Area indicating which ones require accelerated disinfection by chemical processes and which may be destined for the Blue 14-day Quarantine Zone.

1.2 Blue Isolation Zone

Books that do not require accelerated disinfection by chemical processes shall be placed on the shelf of this area in an upright position, thus remaining for a period of 14 days in isolation to ensure inhibition of the SARS-CoV-2 virus in the event of the presumption of its existence on the surface of the books.

1.3 Red Zone II Disinfection

For frequently consulted books or those whose usage require an accelerated disinfection process, proceed as follows: Enter the disinfection area. Two tables must be arranged within the same area. On the first is placed the material that arrives from the Red Reception Zone. The books are placed open and vertically (as a fan), with at least 5cm between

them. On this table a first disinfection spraying is performed with a solution of Isopropanol (CH₃-CH₂-CH₂OH), also known as Isopropyl Alcohol, diluted to 80% in demineralized or distilled water.

- a. After the first spray, the material is transferred to the second table to perform deep disinfection. At this stage the books will be opened and placed upright on a flat surface to receive a second mist at 5% of the agent (Amnio Quaternary Chloride). At the end of this action they will be moved to the area of insulation and ventilation (Yellow Zone).
- b. All spraying shall be carried out with a cold micro-nebulizer, which allows the spraying of microparticles of the disinfectant solution to prevent wetting. Books should not be made wet in any circumstance.
- c. Carry out a second spraying with quaternary ammonia at a concentration of 0.1% in Isopropanol.
- d. Transfer to the rest and ventilation area (Yellow zone).

1.4 Yellow Zone

This will be a rest and ventilation area where books that have completed their accelerated disinfection process will remain for 24 hours, thus allowing their disinfection and ventilation to be completed.

- a. Books which have completed the disinfection process shall be placed on the shelf and tables in this area in an upright, semi-open position, at a minimum distance of 3 cm. between them to promote ventilation.
- b. 24 hours after entering this area, they will move to the Green Zone.

1.5 Green Zone

In this area, the books will be prepared before being returned to the collection, since their disinfection process has been completed, regardless of whether they come from accelerated disinfection or by 14-day quarantine. In this space the following processes will be carried out:

- a. Surface cleaning, including of edges and caps.
- b. Preparation of remittances for delivery.
- c. Distribution in trolleys for transfer and return to the corresponding area.

The guidelines set out in this section of the protocol consider an optimal scenario for the establishment of a disinfection area; however, in libraries that do not have enough space for their installation, at least one designated work table and bookshelf may be available to be divided into zones according to the proposed colour code.

Final Considerations

During the preparation of this Protocol, the safety and health of the staff and users of SIBIUNAM libraries has been privileged. Following this guidance will favour the protection of university students who use their services and collections.

This document cannot be considered definitive, as the pandemic caused by the SARS-CoV-2 virus is an unprecedented event and the information that is published is under constant review. That is why its update is based on three fundamental premises: health and the conservation of human life; access to information services and the protection of their collections.

Finally, it should be reiterated that in order to develop this Biosafety Protocol, many documents issued globally by experts in the field have been analysed, as well as consultations with specialists from different countries to compare their opinions, success stories and failed cases, so any specific comments, doubts or advice when adapting this protocol in each SIBIUNAM library, will be answered at the following electronic addresses: bcentral@dgb.unam.mx and/or restauracion@dgb.unam.mx

Sources Consulted

Assari, S., & Habibzadeh, P. (2020). The COVID-19 Emergency Response Should Include a Mental Health Component. *Archives of Iranian Medicine*, 23(4), 281-282. <https://doi.org/10.34172/aim.2020.12>

Australian Library and Information Association. (2020). *Australian libraries responding to COVID-19: Checklist for reopening libraries*. Deakin, ACT: Australian Library and Information Association. <https://read.alia.org.au/covid-19-and-australian-public-libraries-interim-report-30-april>

Berendes, D., & Rasberry, C. (2020, marzo 30). Mitigating COVID-19 When Managing Paper-Based, Circulating, and Other Types of Collections. *Institute of Museum and Library Services*. <https://www.ims.gov/webinars/mitigating-covid-19-when-managing-paper-based-circulating-and-other-types-collections>

Biblio-Covid. (2020). *Site ressource pour accompagner le déconfinement en bibliothèque*. <http://www.biblio-covid.fr/>

Colegio Nacional de Bibliotecarios. (2020). *Recomendaciones para la reapertura de bibliotecas en el contexto de la pandemia por COVID-19*. http://cnb.org.mx/images/2020/recomendaciones/RECOMENDACIONES_2020.pdf

Dirección General de Comunicación Social. (2020). *Presenta UNAM los lineamientos generales para el regreso a las actividades universitarias en el marco de la pandemia* (Boletín UNAM-DGCS-528). Universidad Nacional Autónoma de México. https://www.dgcs.unam.mx/boletin/bdbole-tin/2020_528.html

Gobierno de México. (2020). *Lineamiento general para la mitigación y prevención de COVID-19 en espacios públicos cerrados*. https://coronavirus.gob.mx/wp-content/uploads/2020/03/Lineamiento_Espacio_Cerrado_27032020.pdf

Intendencia Departamental de Paysandú. (2020). *Protocolo sanitario: Plan de actuación para la reapertura en los Servicios de Bibliotecas Públicas del Departamento de Paysandú, tras la pandemia Covid-19*. <http://www.find-local.com/UY/Ciudad-de-Paysand%C3%BA/183407905556026/Biblioteca-P%C3%BAblica-%E2%80%9CJos%C3%A9-Pedro-Varela%E2%80%9D>

International Federation of Library Associations and Institutions. (2020, mayo 8). *COVID-19 y el Sector Bibliotecario Global*. <https://www.ifla.org/ES/node/92983>

Lastreto, R. (2020, abril 7). *Cómo actuar con los libros ante el riesgo de contagio por COVID-19. Cómo actuar con los libros ante el riesgo de contagio por COVID-19.* <https://soybibliotecario.blogspot.com/2020/04/como-actuar-libros-covid-19.html>

Sampson, C. S. (2020). Adaption of the emergency department decontamination room for airway management during COVID-19. *The American Journal of Emergency Medicine.* <https://doi.org/10.1016/j.ajem.2020.04.031>

Sánchez Hernampérez, A. (2020, abril 2). *Cómo actuar con los libros ante el riesgo de contagio por COVID -19. El Blog de la BNE.* <http://blog.bne.es/blog/como-actuar-con-los-libros-ante-el-riesgo-de-contagio-por-covid-19/>

Uccio, F. S. D., Valente, S., Colivicchi, F., Murrone, A., Caldarola, P., Lenarda, A. D., Roncon, L., Amodeo, E., Aspromonte, N., Cipriani, M. G., Domenicucci, S., Francese, G. M., Imazio, M., Urbinati, S., Gulizia, M. M., & Gabrielli, D. (2020). Position paper ANMCO: Organizzazione della Rete per il trattamento dei pazienti con sindrome coronarica acuta durante emergenza pandemica COVID-19. *Giornale Italiano di Cardiologia*, 21(5), 332-335. <https://doi.org/10.1714/3343.33129>

van Doremalen, N., Bushmaker, T., Morris, D. H., Holbrook, M. G., Gamble, A., Williamson, B. N., Tamin, A., Harcourt, J. L., Thornburg, N. J., Gerber, S. I., Lloyd-Smith, J. O., de Wit, E., & Munster, V. J. (2020). Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1. *New England Journal of Medicine*, 382(16), 1564-1567. <https://doi.org/10.1056/NEJMc2004973>

World Health Organization. (2004). *Reunión de consulta sobre los preparativos para una pandemia de influenza en países con recursos limitados: Kuala Lumpur, Malasia, 23-25 de junio de 2004.* WHO/CDS/CSR/GIP/2004.1. <https://apps.who.int/iris/handle/10665/70636>

World Health Organization. (2005). *Lista de verificación de la OMS del plan de preparación para una pandemia de influenza.* <https://www.paho.org/Spanish/AD/DPC/CD/vir-flu-oms-lista-verificacion.htm>

World Health Organization. (2020). 2019 Novel Coronavirus (2019-nCoV): *Strategic Preparedness and Response Plan.* World Health Organization. <https://www.who.int/docs/default-source/coronaviruse/srp-04022020.pdf>

World Health Organization. (2020). *COVID-19 Strategic Preparedness and Response Plan. Operational planning guidelines to support country preparedness and response*. World Health Organization. <https://www.who.int/docs/default-source/coronaviruse/srp-04022020.pdf>

World Health Organization. (2020a). *Guiding Principles for International Outbreak Alert and Response*. World Health Organization. <https://www.who.int/csr/outbreaknetwork/guidingprinciples/en/>

World Health Organization. (2020b, marzo 16). *Declaración conjunta de la ICC y la OMS: Un llamamiento a la acción sin precedentes dirigido al sector privado para hacer frente a la COVID-19*. <https://www.who.int/es/news-room/detail/16-03-2020-icc-who-joint-statement-an-unprecedented-private-sector-call-to-action-to-tackle-covid-19>