

ESTRATEGIAS  
PRÁCTICAS Y  
HERRAMIENTAS  
OCUPACIONALES  
PARA REDUCIR EL  
IMPACTO DE COVID  
EN LAS EMPRESAS

CUÁL ES EL IMPACTO DEL  
MAL MANEJO DEL COVID  
EN LAS EMPRESAS

Dra. Nadia Collazo

# ¿Qué secuelas ha dejado el COVID en México?

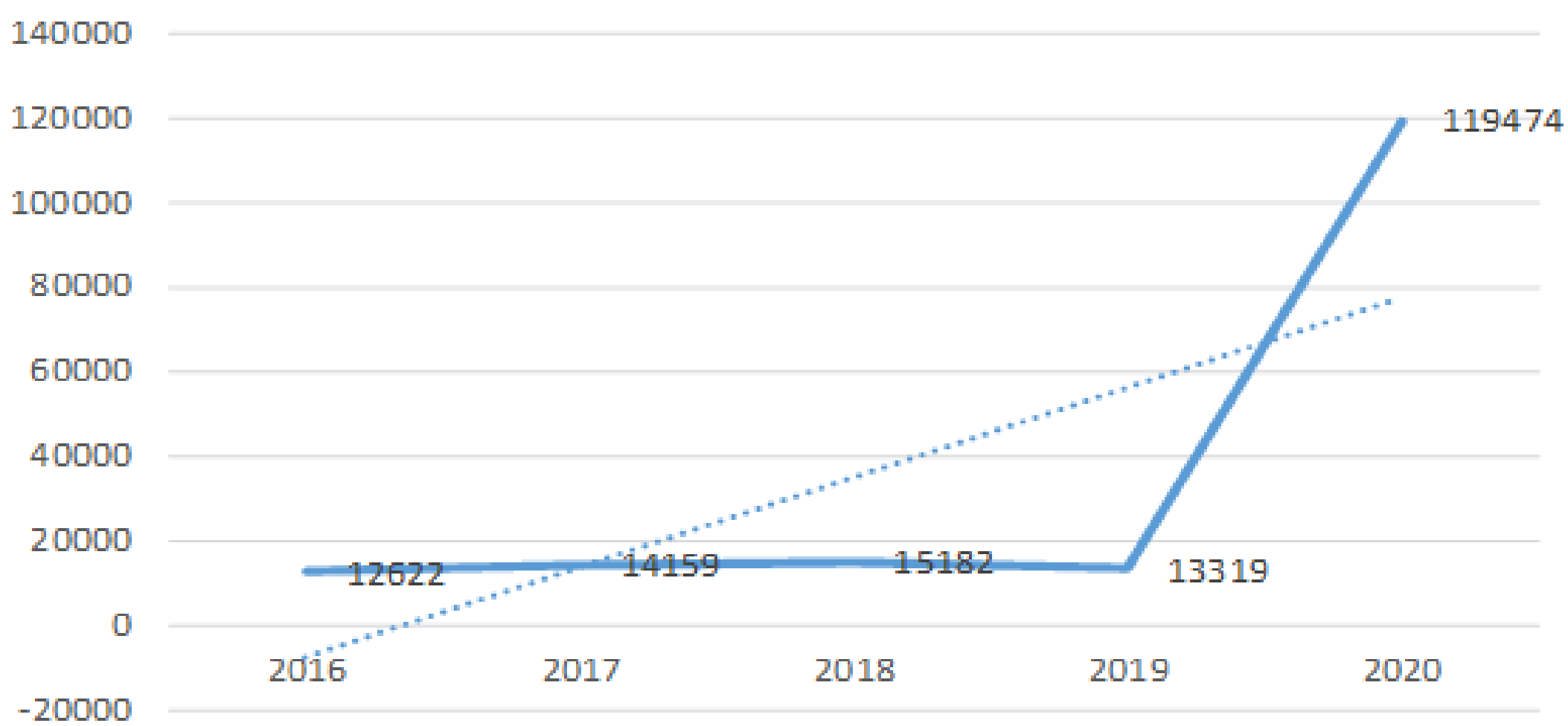
COVID ES LA PRIMERA CAUSA DE ENFERMEDAD PROFESIONAL EN EL 2020

| ENFERMEDAD PROFESIONAL                                                                          | 2019  | 2020   |
|-------------------------------------------------------------------------------------------------|-------|--------|
|                                                                                                 | 13319 | 119474 |
| COVID-19                                                                                        | 0     | 109287 |
| Dorsopatías                                                                                     | 2435  | 1670   |
| Enfermedades infecciosas y parasitarias                                                         | 193   | 1401   |
| Hipoacusias                                                                                     | 1712  | 1153   |
| Lesiones del Hombro                                                                             | 751   | 584    |
| Síndrome del túnel Carpi                                                                        | 851   | 566    |
| Neumoconiosis                                                                                   | 992   | 526    |
| Intoxicaciones                                                                                  | 996   | 504    |
| Otras Entesopatías                                                                              | 709   | 431    |
| Tenosinovitis de Estiloides Radial de (Quervain)                                                | 559   | 323    |
| Dermatitis de contacto                                                                          | 501   | 308    |
| Enfermedad del Ojo y sus anexos                                                                 | 589   | 306    |
| Otras Sinovitis, Tenosinovitis y Bursitis                                                       | 450   | 237    |
| Afecciones respiratorias debidas a la inhalación de gases, humos, vapores y sustancias químicas | 368   | 210    |
| Artrosis                                                                                        | 307   | 207    |
| Enfermedades respiratorias asociadas a COVID-19                                                 | 0     | 168    |
| Epicondilitis                                                                                   | 235   | 135    |
| Enfermedad por Descompresión                                                                    | 136   | 119    |
| Trastornos mentales y del comportamiento                                                        | 137   | 107    |
| Enfermedad vascular periférica                                                                  | 111   | 58     |
| Cáncer ocupacional                                                                              | 44    | 27     |
| Asma                                                                                            | 28    | 19     |
| Enfermedades Cerebrovasculares                                                                  | 0     | 5      |
| Enfermedad Cardíaca                                                                             | 0     | 5      |
| Enfermedades de las vías aéreas debidas a polvos orgánicos específicos                          | 0     | 4      |
| Neumonitis debida a hipersensibilidad al polvo orgánico                                         | 0     | 4      |
| Varios de frecuencia menor                                                                      | 1415  | 1110   |

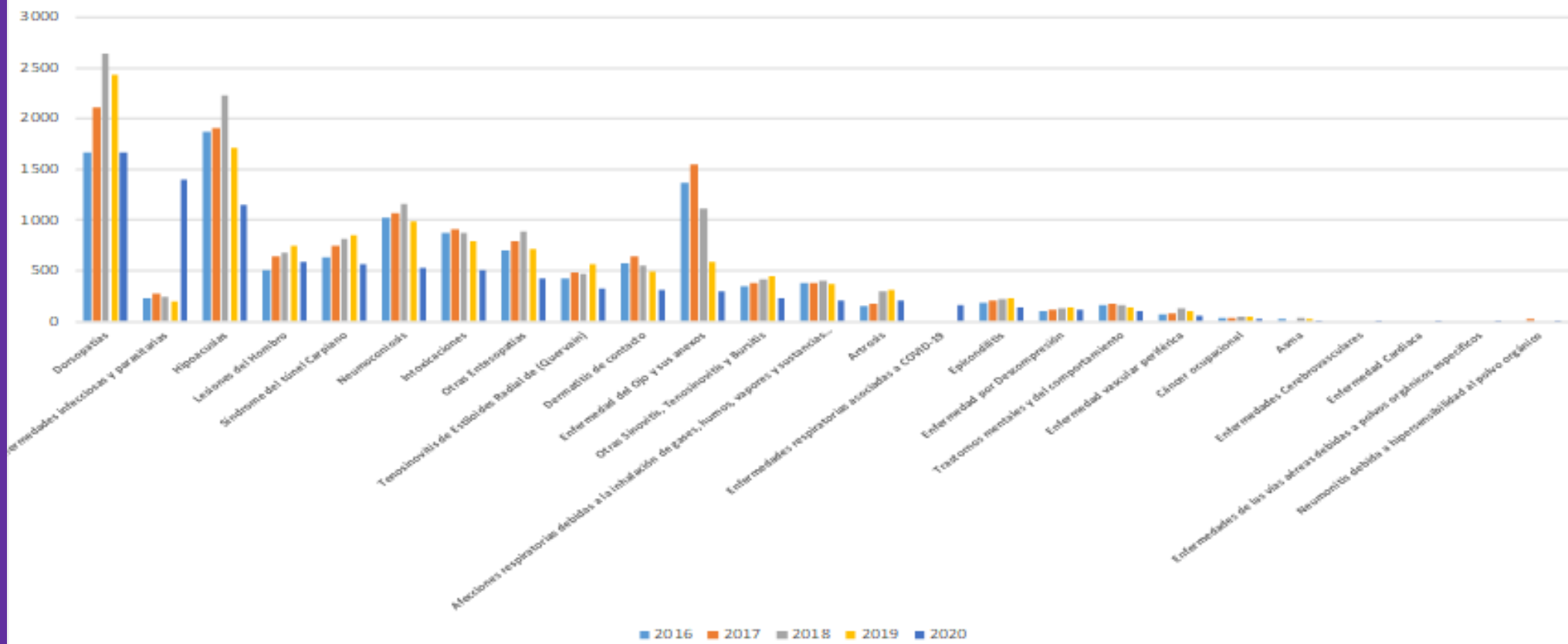
# ¿Cuál es el Problema ?

La prima de riesgo que presentan las empresas se está elevando a razón al incremento de las enfermedades laborales y las secuelas

No. Casos reportados

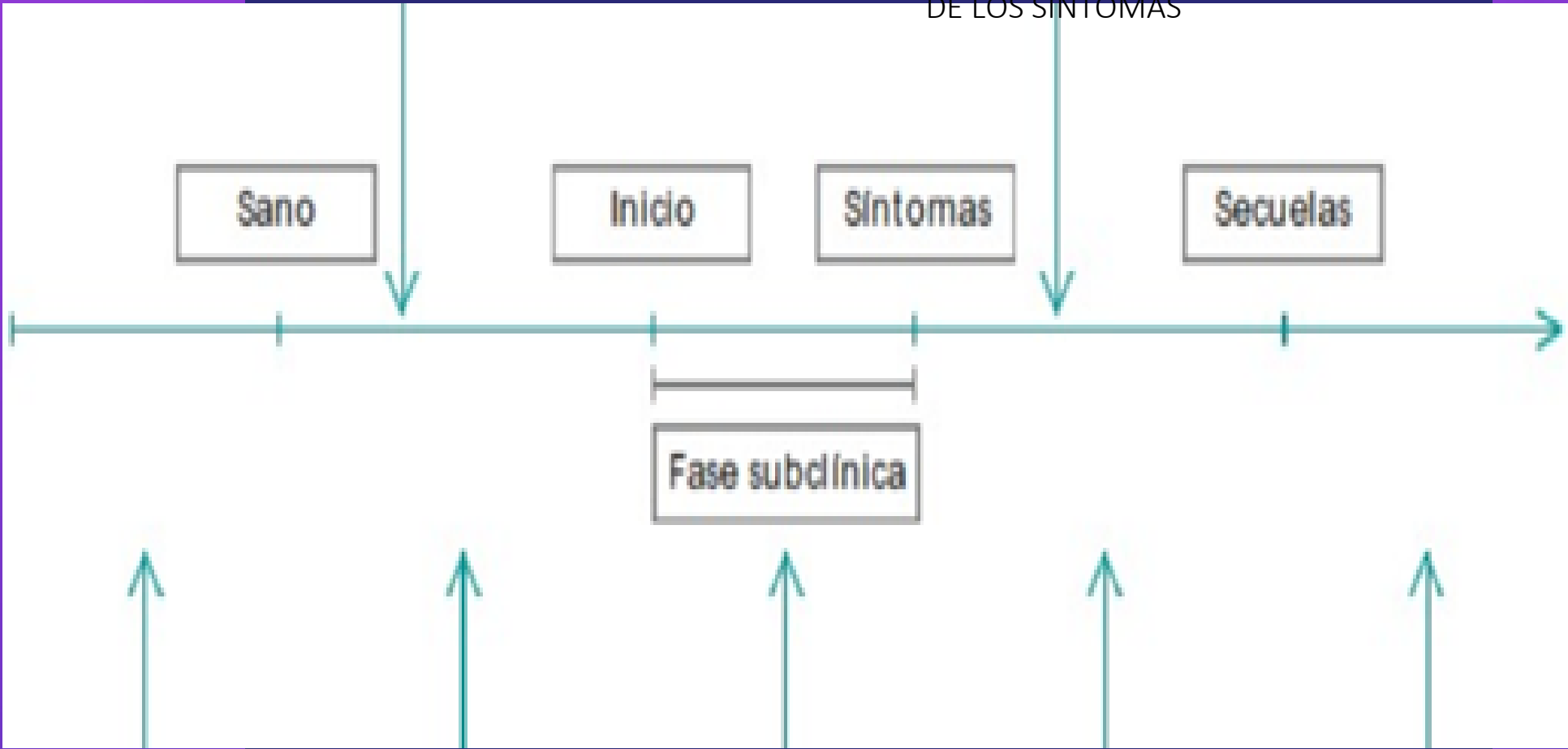


Registro enfermedades profesionales en México 2016-2020



# EVOLUCIÓN NATURAL DE LA INFECCIÓN POR COVID-19 / OMICRON

PRUEBA DE PCR  
PARA DETECCIÓN  
2 A 3 DÍAS DESPUÉS  
DE LOS SÍNTOMAS



PERÍODO DE  
INCUBACIÓN  
2 A 4 DÍAS

REINTEGRACIÓN AL  
TRABAJO DÍA 7  
A 10 DESDE EL  
INICIO DE LOS  
SÍNTOMAS  
OPCIONAL PRUEBA DE  
ANTÍGENO

REHABILITACIÓN  
PULMONAR  
PARA REDUCIR  
SECUELAS

CME AVAILABLE FOR THIS ARTICLE AT [ACOEM.ORG](https://www.acoem.org)

## Practical Strategies and Tools for Use by Occupational and Environmental Medicine Departments During COVID-19 Pandemic Surges

Andrew H. Guo, MD, Ma Visimee Diaz-Caturan, CNP, Cesar Reis, MD, Deborah Carritte, MD, Brad M.T. Smith, DC, Yann O. Wester, MD, and Susan L. Hall, MD

**Objectives:** Occupational and environmental medicine (OEM) departments in healthcare institutions can be quickly overwhelmed when COVID-19 infection rates rapidly and simultaneously increase in the workforce and the patients served. Our goal is to present a detailed toolkit of practical approaches for use by front-line OEM specialists to address workforce management tasks during pandemic surges. **Methods:** Specific focus is on tasks related to employee symptom triage, exposure risk assessment, workplace contact tracing, and work restrictions. **Results:** Tools include strategies used by customer call centers, two decision support algorithms (exposure due to cohabitation or non-cohabitation), a color-coded employee case tracking tool, a contact tracing protocol, and documentation templates that serve as memory aids for encounters. **Conclusions:** These tools are created with commonly used software. Implementation is feasible in most front-line OEM settings, including those with limited resources.

**Keywords:** algorithm, call center, cohabitation, color-coded, contact tracing, COVID-19, documentation template, employee occupational medicine, employee health, severe acute respiratory syndrome (SARS)-CoV-2

### Learning Objectives

- Discuss the challenges faced by occupational and environmental medicine (OEM) departments in dealing with healthcare workforce shortages during the COVID-19 pandemic.
- Summarize the new tools developed by the authors for use by OEM departments, focusing on the practical needs of small- to medium-size facilities.
- Discuss newly developed decision support tools designed for use in employees restricted by work due to exposure at home or elsewhere and in unique hospital settings that pose special challenges.

From the Veterans Affairs Loma Linda Healthcare System, Loma Linda, California (Dr Guo, Diaz-Caturan, Dr Reis, Dr Carritte, Dr Smith, Dr Wester, Dr Hall), Loma Linda University, School of Medicine, Loma Linda, California (Dr Guo, Dr Reis, Dr Carritte, Dr Hall), Loma University, School of Public Health, Loma Linda, California (Dr Reis, Dr Hall), Southern California University of Health Sciences (Dr Smith), Loma Linda University Health (Dr Wester).

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**Conflict of interest:** All authors, except for Yann Wester, have been employed by VA Loma Linda Healthcare (VALLHS) within the last 36 months. Yann Wester is an Occupational Medicine resident who is employed by the Loma Linda University Health residency program and was employed within the last 3 years in the internship program at Einstein Medical Center, Philadelphia. Within the last 36 months, Cesar Reis was employed at Kaiser Permanente Healthcare System. All other relationships between authors and the listed entities are academic appointments without compensation. All entities are medical training institutes and peer-reviewed publication of scholarly work is encouraged.

The authors wish to express their gratitude to the VALLHS staff who supported this work: Dr. Michael Ing (Chief of Infectious Disease Prevention), Dr. Thomas Bidell (Chief of Incident Command Center), Anne Yakityol (Clinical Coordinator Nurse), Kelvin Alcaraz (IT support), Daniel Panaszyński (Pharmacist) and the Employee Health nursing team (Josephine Court, Marisha Patel, Jing Ren).

**Ethical Considerations & Disclosures:** This work has been designated as quality improvement (not research) by the VALLHS Institutional Review Board (IRB).

**Clinical Significance:** Detailed strategies to support the specific tasks performed by front-line occupational and environmental medicine (OEM) specialists during COVID-19 pandemic surges are lacking. Five strategies are presented that can be easily adopted by OEM departments, including those with limited resources. A novel algorithm for COVID-19 exposures due to cohabitation is included.

Hall, Guo, Diaz-Caturan, Reis, Carritte, Smith, and Wester have no relationships/conditions/circumstances that present potential conflict of interest.

The JOEM editorial board and planners have no financial interest related to this research.

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### INTRODUCTION

In early 2020, healthcare personnel (HCP) around the world became aware of the deadly infection known as severe acute respiratory syndrome (SARS)-CoV-2 or COVID-19. The virus spread quickly and a pandemic was declared on March 11, 2020.<sup>1</sup> Shortages in frontline HCP and support staff is one of the most serious challenges facing healthcare institutions during the pandemic.<sup>2,3</sup> This becomes increasingly difficult during surges when the numbers of COVID-19 infections increase in both the general population and the HCP population. These facts highlight the crucial responsibilities of occupational and environmental medicine (OEM) departments to not only restrict infected employees from working but also to promptly return them to work when it is safe to do so. When rapid influxes of COVID-19 cases occur, OEM workload dramatically increases, and teams can be overwhelmed.

Recent publications describe valuable OEM strategies implemented by large healthcare systems to tackle this increased workload.<sup>4–9</sup> The worth of these approaches is undisputable. However, the implementation may not be feasible for smaller healthcare systems and/or those with limited resources. In contrast, this work presents practical strategies that can be readily adopted by most facilities. These include (1) application of methodology commonly used by commercial customer call centers to manage employee telephone visits, (2) algorithms to guide decisions involving evaluation, testing, and work disposition, (3) a case tracking repository, (4) a contact tracing protocol, and (5) documentation templates that serve as memory aids during employee encounters.

The Veterans Affairs Loma Linda Healthcare System (VALLHS) operates a mid-sized hospital providing care to over 69,000 patients in the southern area of California in the United States. The OEM department consists of five permanent staff (two physicians, two nurses, and two administrative clerk) caring for approximately

# Problema 1

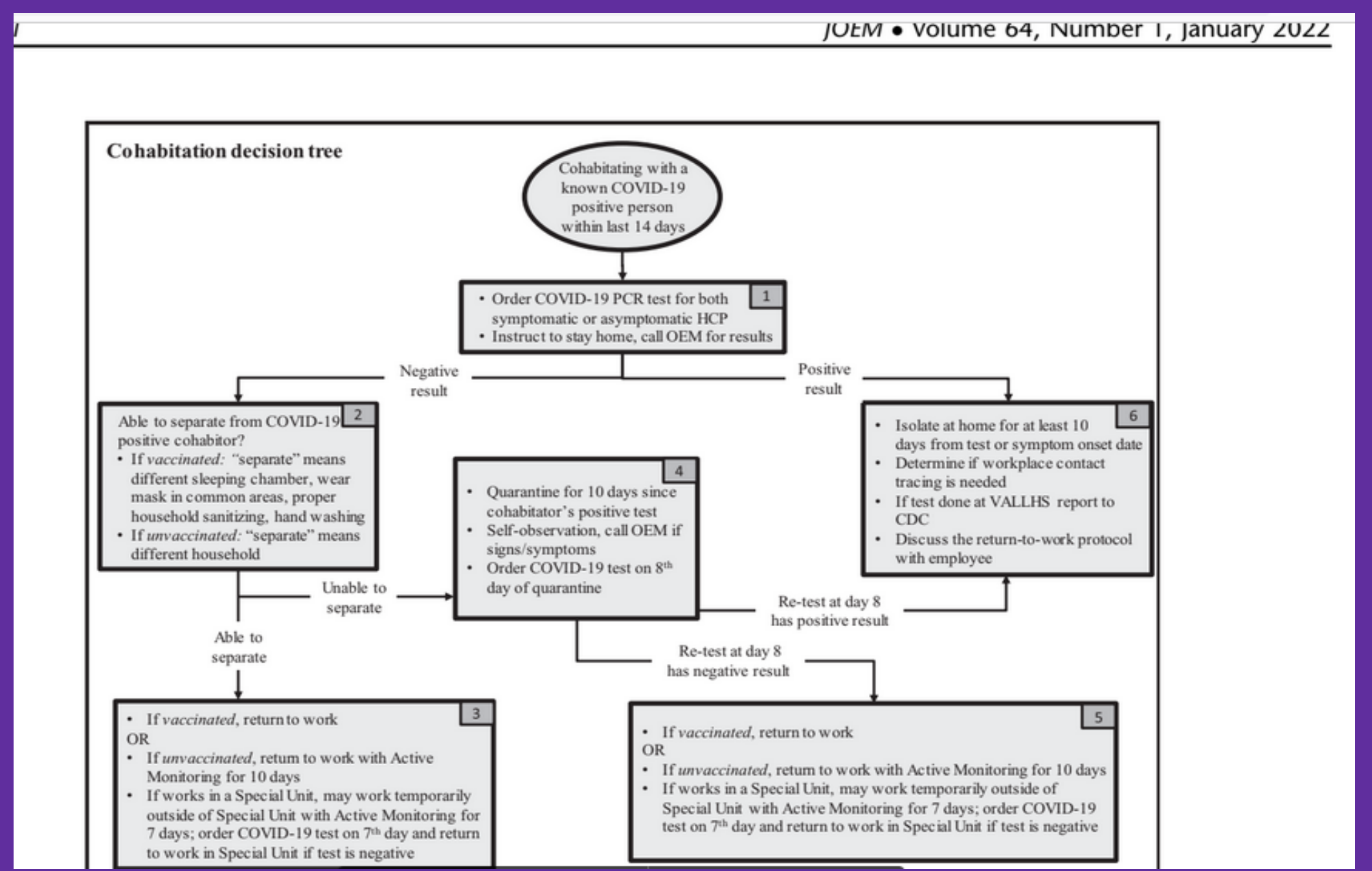
¿QUÉ PUEDE HACER LA  
EMPRESA CUANDO UN  
TRABAJADOR TIENE UN  
FAMILIAR POSITIVO DE  
COVID?

¿SE PUEDE IMPLEMENTAR  
MEDIDAS PARA EVITAR UN  
BROTE DENTRO DE LA  
EMPRESA?

ÁRBOL DE DECISIONES PARA  
COHABITANTES DE UNA CASA

# Problema 3

# Cohabitación con persona positiva a COVID durante los últimos 14 días

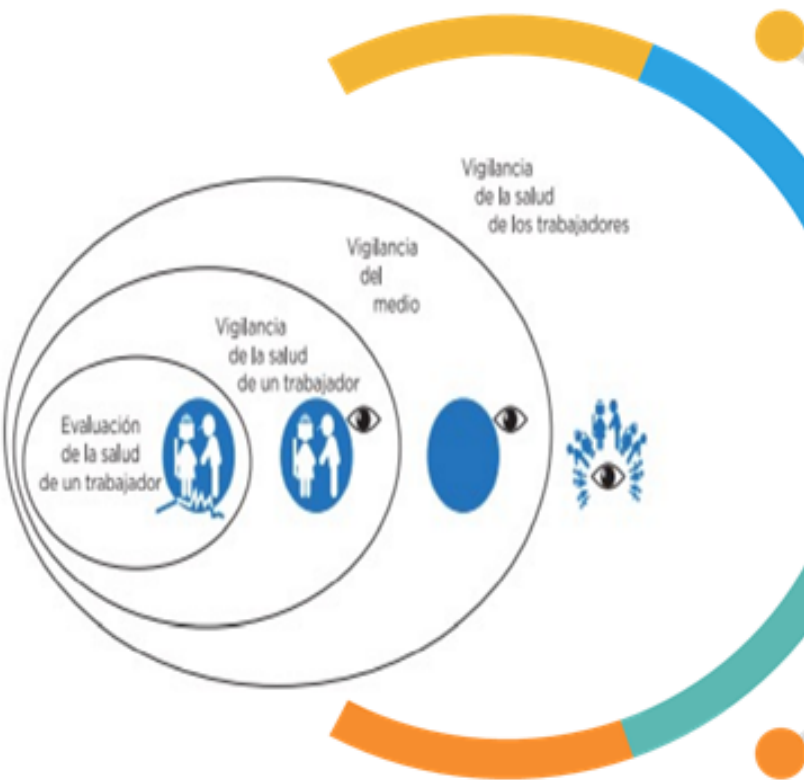


# Solución 1

## Vigilancia individual y colectiva Implementación del Programa de Vigilancia Médica Periódica en la empresa



### ¿Qué es la vigilancia médica?



- Conjunto de actividades cuyo objetivo **es la detección precoz** de alteraciones de salud, principalmente relacionados con el trabajo, mediante procedimientos de recogida sistemática y análisis de información tanto a nivel individual como colectivo.

**El principal propósito va a ser comprender mejor el impacto que el trabajo tiene sobre la salud de los trabajadores**

**Que los efectos adversos se identifiquen tan pronto como sea posible.**

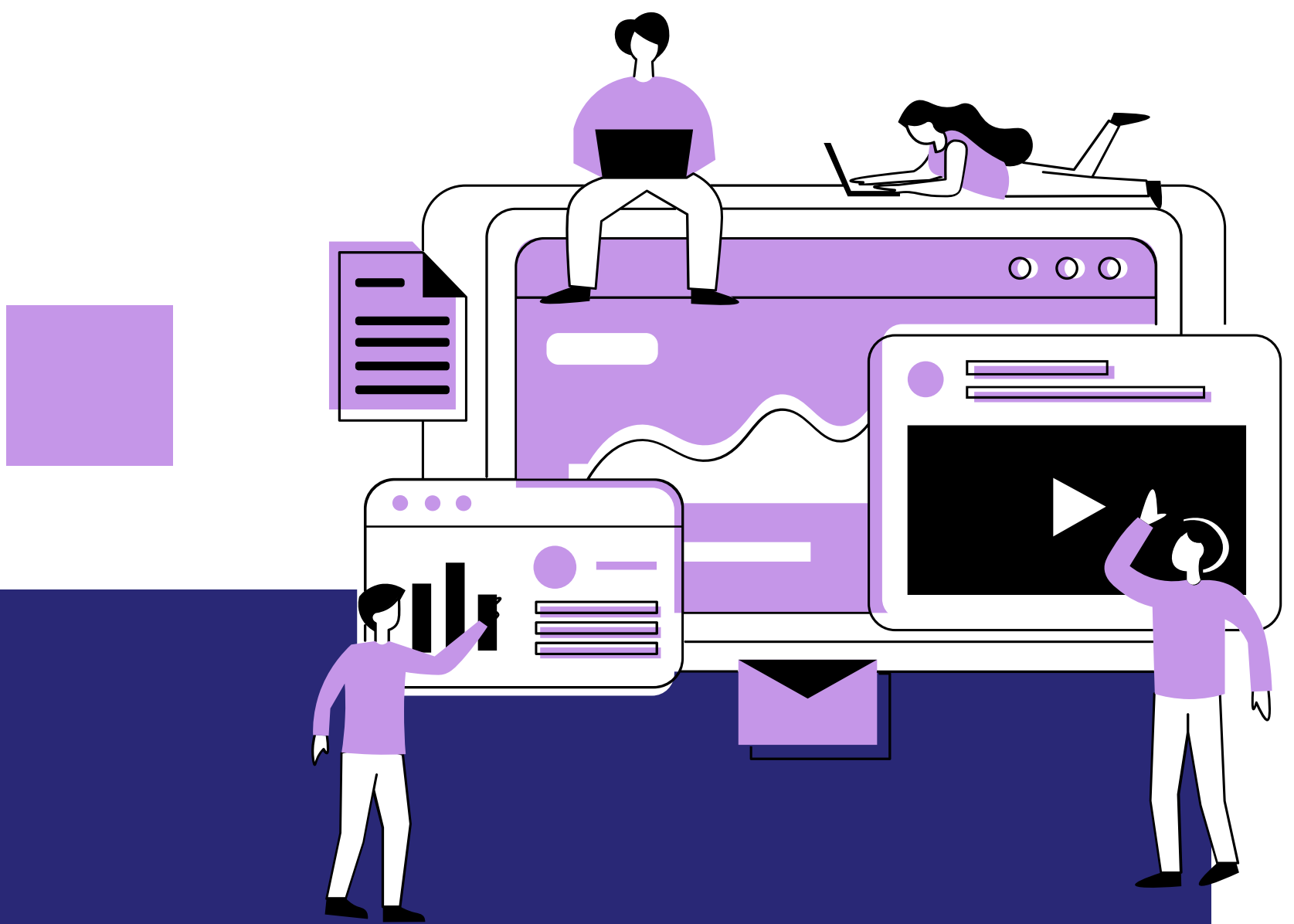
**Evitar la progresión hacia un posterior daño a la salud.**

**Generar información que oriente a la toma de desiciones para mejorar las condiciones de trabajo.**

Figura 1. Vigilancia de la salud de los trabajadores (Inspirada en *Managing workplace health and safety: health surveillance* (first draft, 1999), del Grupo *ad hoc* del Comité Consultivo de Seguridad, Higiene y Protección de la Salud en el Trabajo de la Comisión Europea).



¿Cuáles son  
las  
indicaciones  
para hacer  
pruebas?



## Test PCR:

- En caso sospechoso de COVID
- Cuando es contacto estrecho de persona con COVID positivo y es considerado caso sospechoso
- Cuando los signos clínicos son compatibles con COVID

## Test de Antígenos:

- En personas que se reintegran al trabajo p ej: regreso de vacaciones, personal de nuevo ingreso
- Para romper cadena de transmisión en la empresa
- Como escaneo para prevenir un brote entre el personal positivo
- Cuando un trabajador es asintomático y es contacto estrecho de persona positiva a COVID

## Test de Anticuerpos IgM

- Recomendable por indicación médica

¿ Y los trabajadores que  
tuvieron exposición a  
personas positivas a COVID  
en los últimos 14 días?



# Exposición en el trabajo a caso COVID

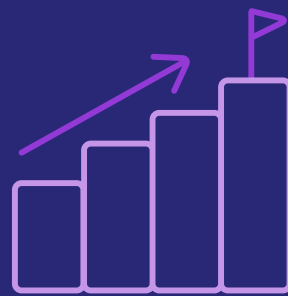
cuando el Trabajador expuesto tiene síntomas:



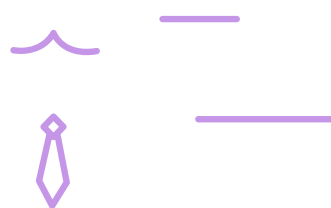
1. Quedarse en casa
2. Prueba PCR

## 3. Resultado positivo de PCF

Quedarse en casa de 7 a 10 días desde la aparición de los síntomas

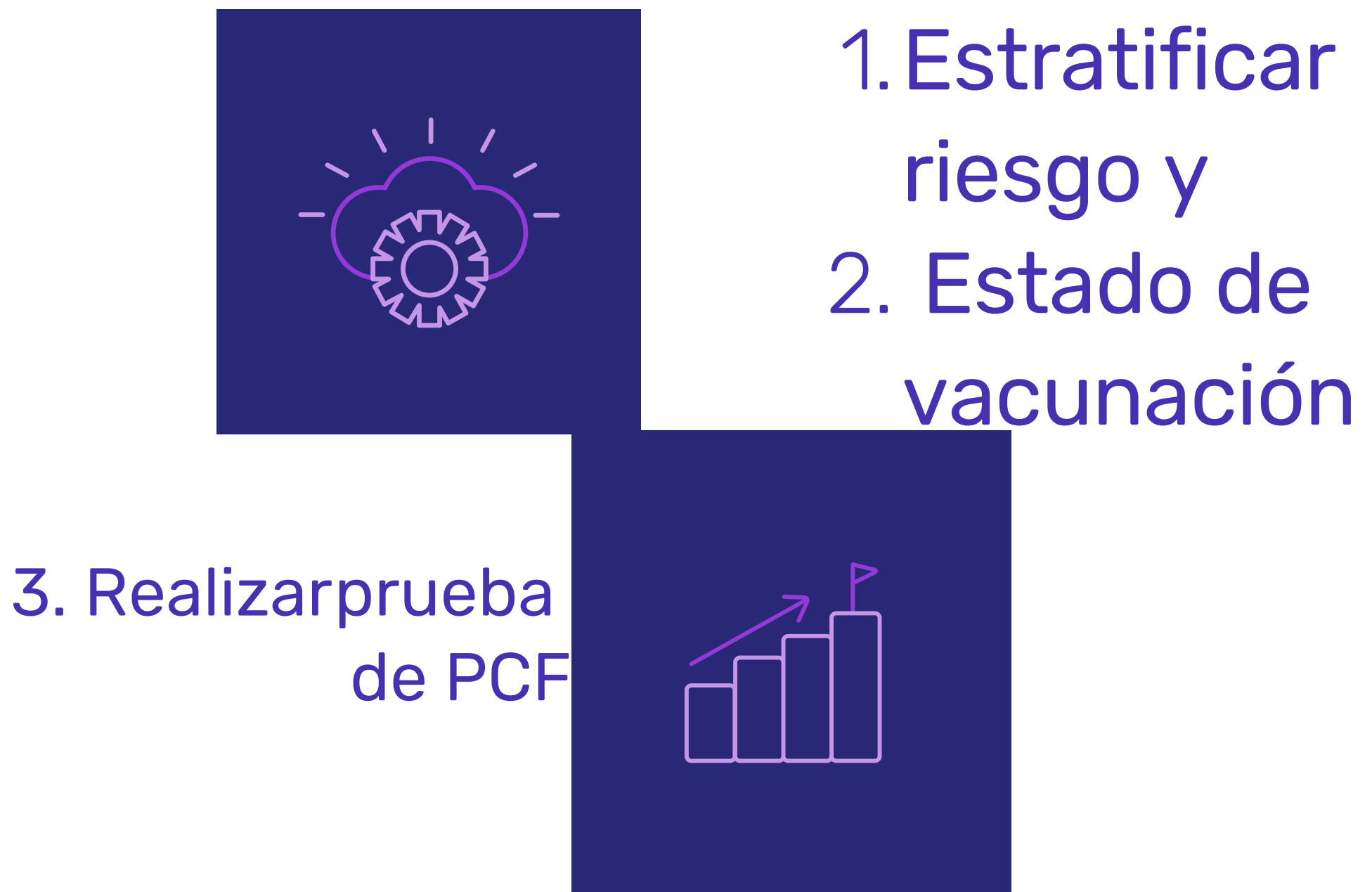


4. Discutir con el trabajador el regreso al trabajo



# Exposición en el trabajo a caso COVID

y el Trabajador expuesto no tiene síntomas:



# No hay exposición conocida a COVID

y el Trabajador tiene síntomas:



1. Estratificar riesgo y
2. Estado de vacunación

3. Realizar prueba de PCF

