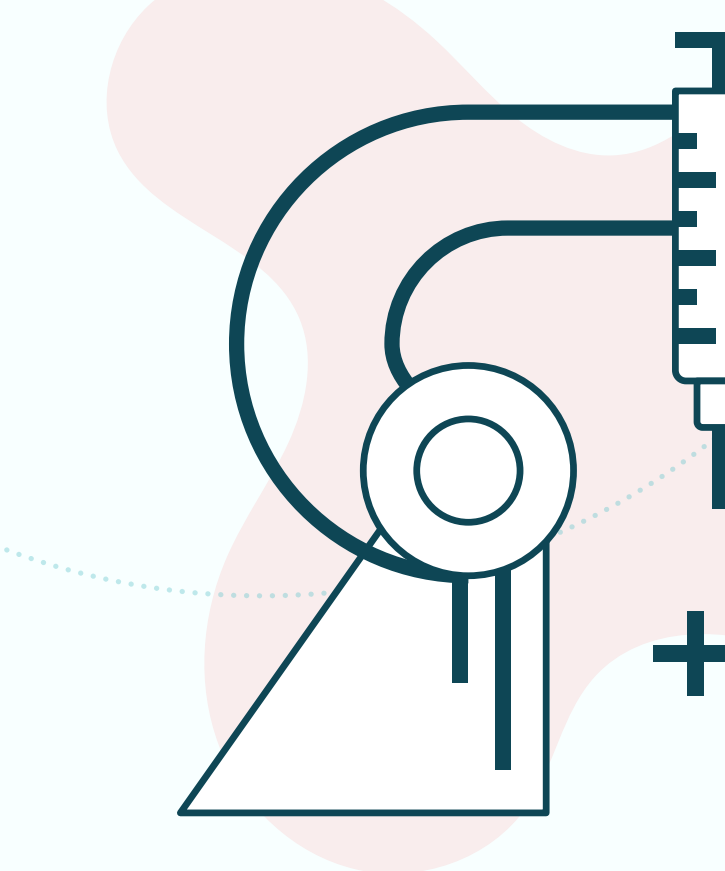


THE HISTORY OF ROBOTIC SURGERY



DR. KON. M. KONSTANTINIDIS
MD, PhD, FACS, MAMSE

These timelines provide a concise overview of the major milestones in the history of robotic surgery.



1985

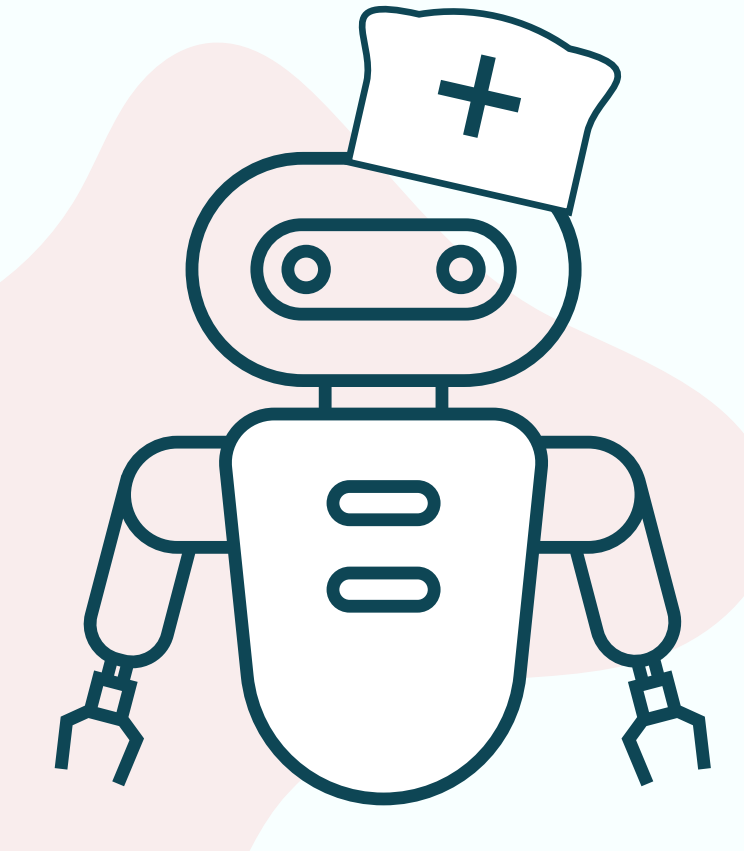
FIRST ROBOT-ASSISTED SURGERY

The first documented use of a robot in surgery occurs when the PUMA 560 robotic arm assists in a neurosurgical biopsy.

1950s

EMERGENCE OF ROBOTIC SURGERY CONCEPTS

The concept of robotic surgery begins to take shape with the development of early robotic devices for medical purposes.



1990

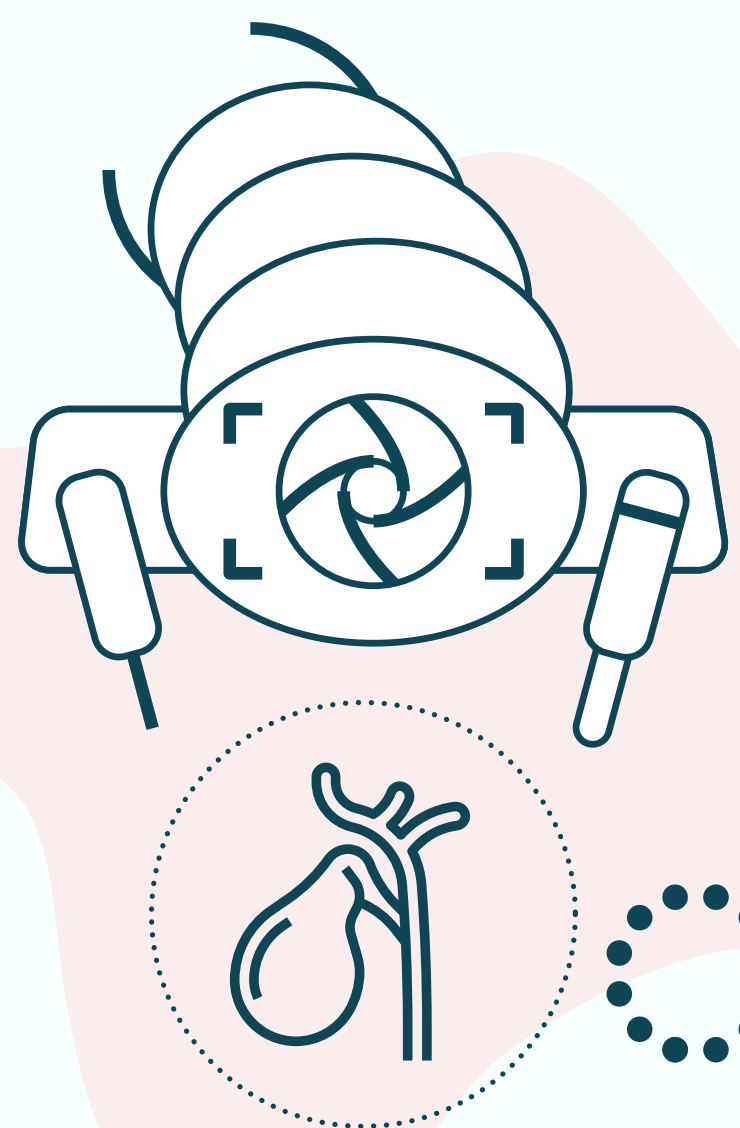
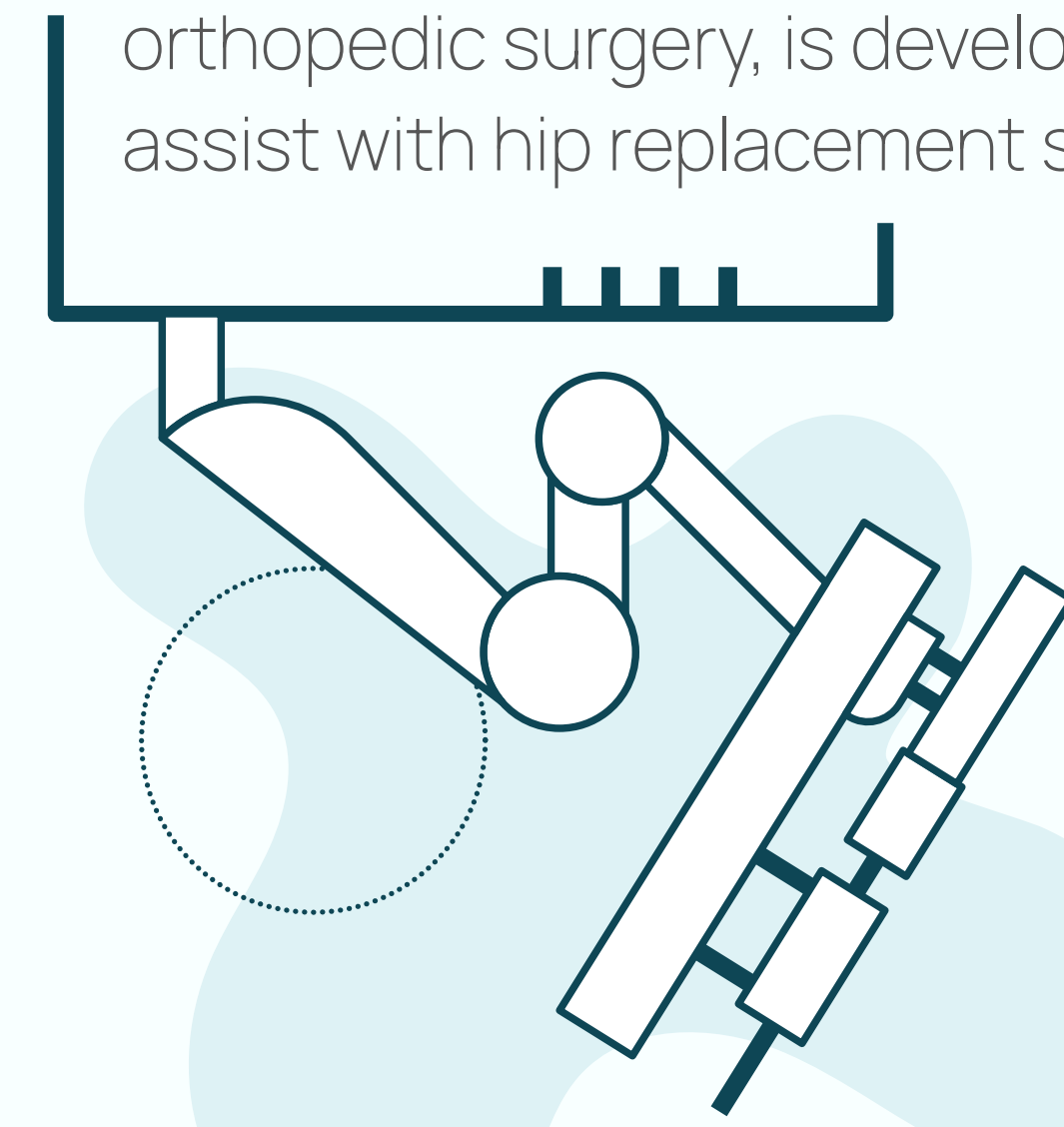
INTRODUCTION OF THE DA VINCI SYSTEM

The da Vinci Surgical System, developed by Intuitive Surgical, is introduced. It becomes one of the most well-known and widely used robotic surgical systems, primarily for minimally invasive procedures.

1988

ROBODOC FOR ORTHOPEDIC PROCEDURES AND PROBOT DEVELOPMENT

The ROBODOC system, designed for orthopedic surgery, is developed to assist with hip replacement surgeries.



2001

J. MARESCAUX AND M. GAGNER PERFORM REMOTE CHOLECYSTECTOMY

Successfully performing a remote cholecystectomy, a gallbladder removal surgery, using robotic technology.

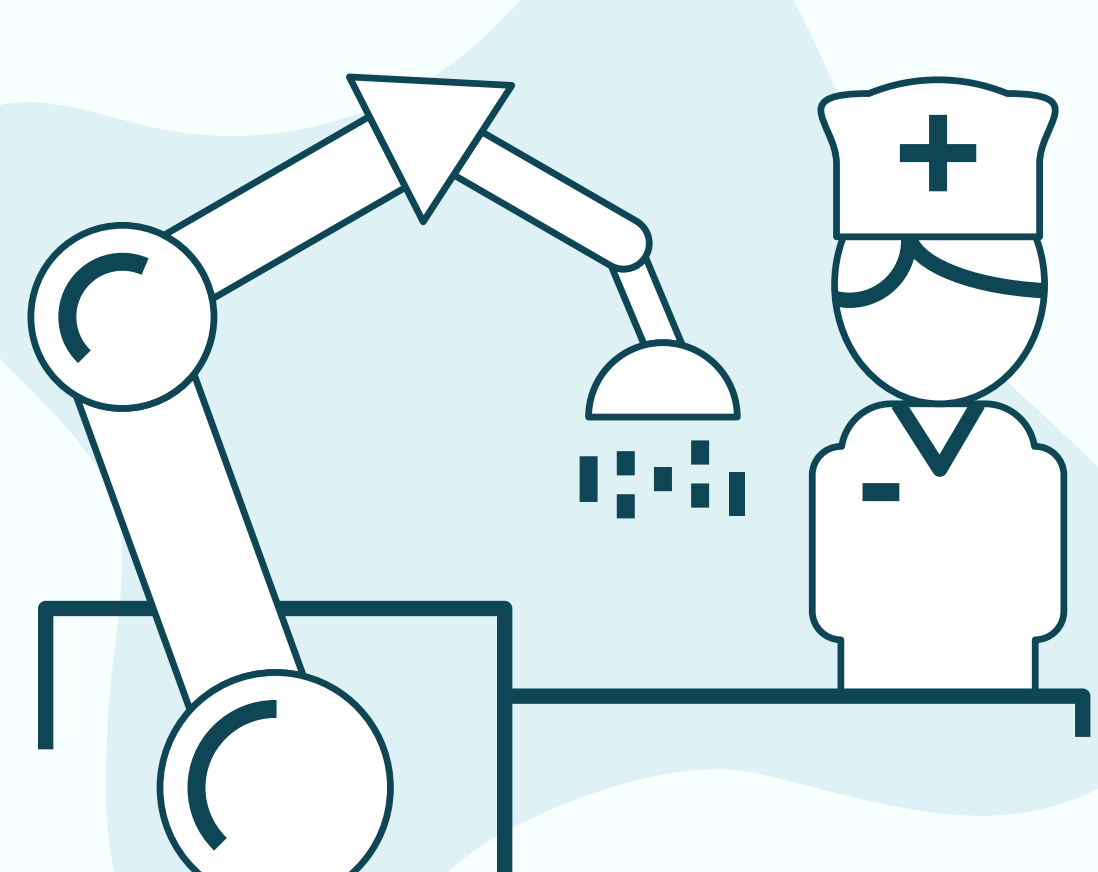
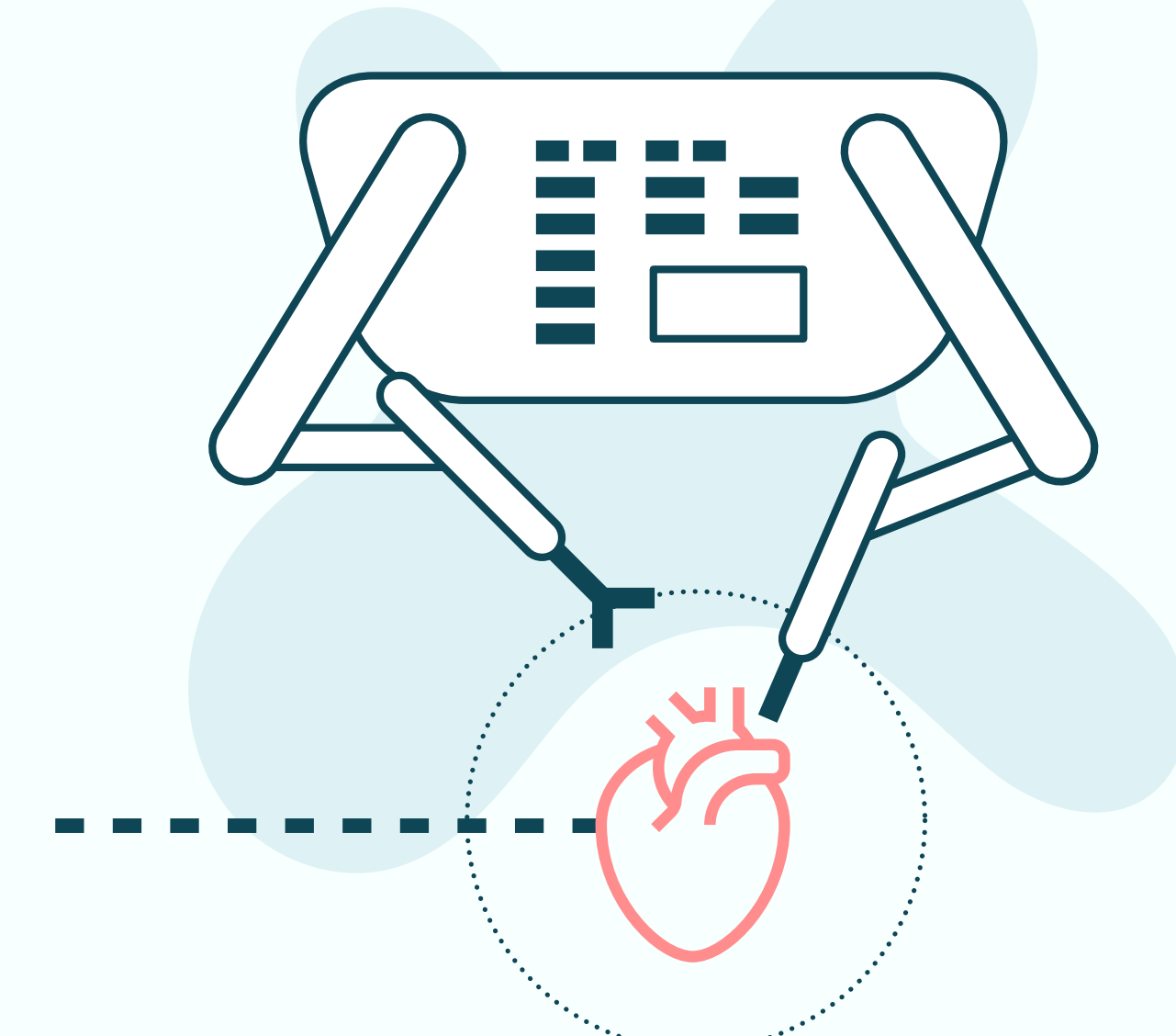
2000

FIRST ROBOT-ASSISTED HEART BYPASS

The first fully robotic-assisted heart bypass surgery is performed.

FDA APPROVAL FOR DA VINCI IN LAPAROSCOPY

The da Vinci Surgical System is approved by the U.S. Food and Drug Administration (FDA) for general laparoscopic surgery.



2011

WORLD'S FIRST ROBOTIC SINGLE-SITE SURGERY IN ATHENS

Cholecystectomy is performed by prof. Konstantinidis in Athens Medical Center

2008

ROBOT-ASSISTED KIDNEY TRANSPLANT

The first robot-assisted kidney transplant is successfully performed.



2015

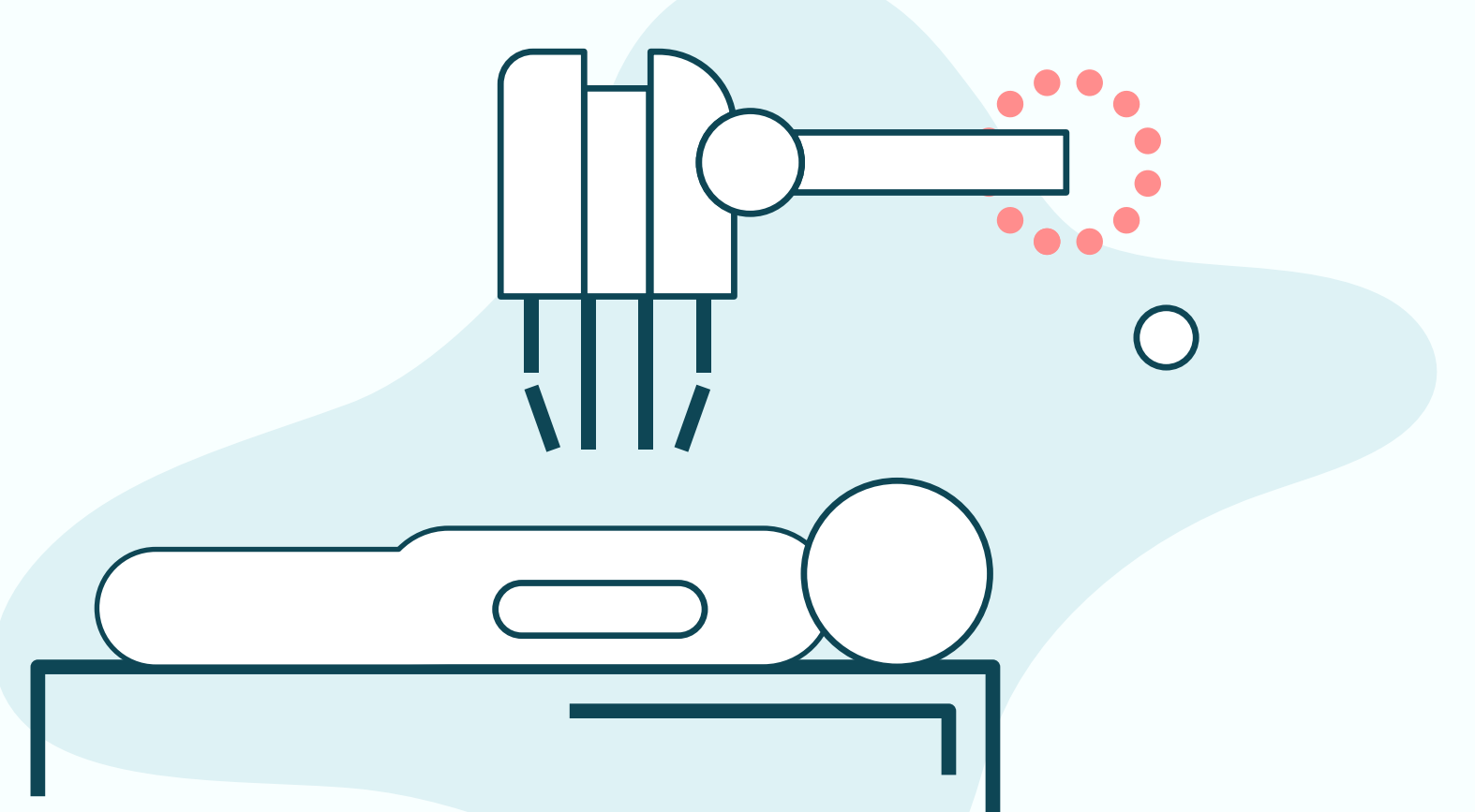
FDA CLEARANCE FOR DA VINCI XI SURGICAL SYSTEM

The FDA clears the da Vinci Xi Surgical System, an updated version of the da Vinci robot, offering enhanced capabilities and versatility.

2014

DA VINCI APPROVED FOR PEDIATRIC SURGERY

The FDA approves the da Vinci Surgical System for use in performing certain procedures on pediatric patients.



2020

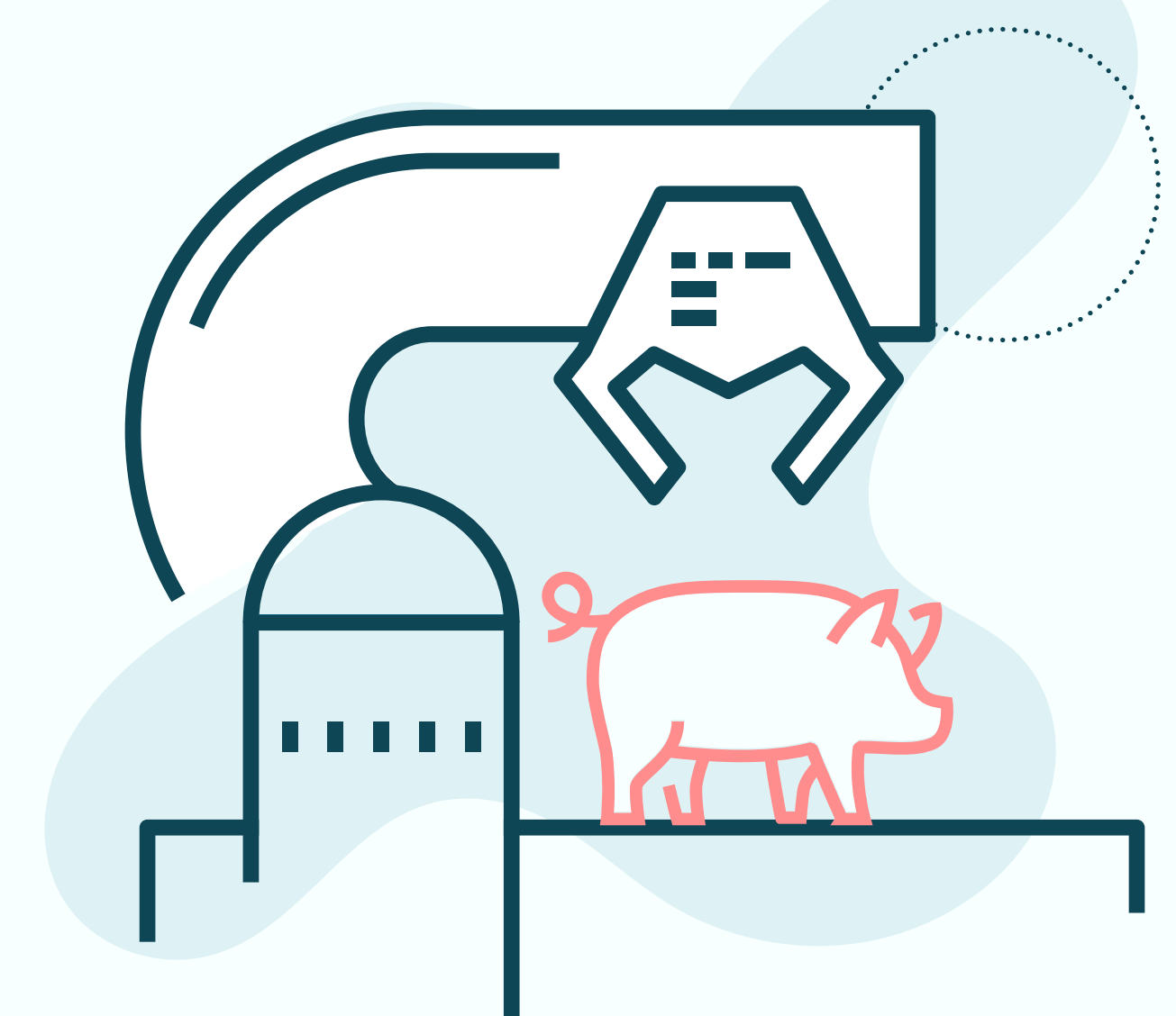
EXPLORATION OF REMOTE ROBOTIC SURGERY

Researchers and surgeons continue to explore new applications for robotic surgery, including remote and telesurgery, where surgeons can operate on patients from a distant location using robotic systems.

2019

FIRST AUTONOMOUS ROBOTIC SURGERY (IN A PIG)

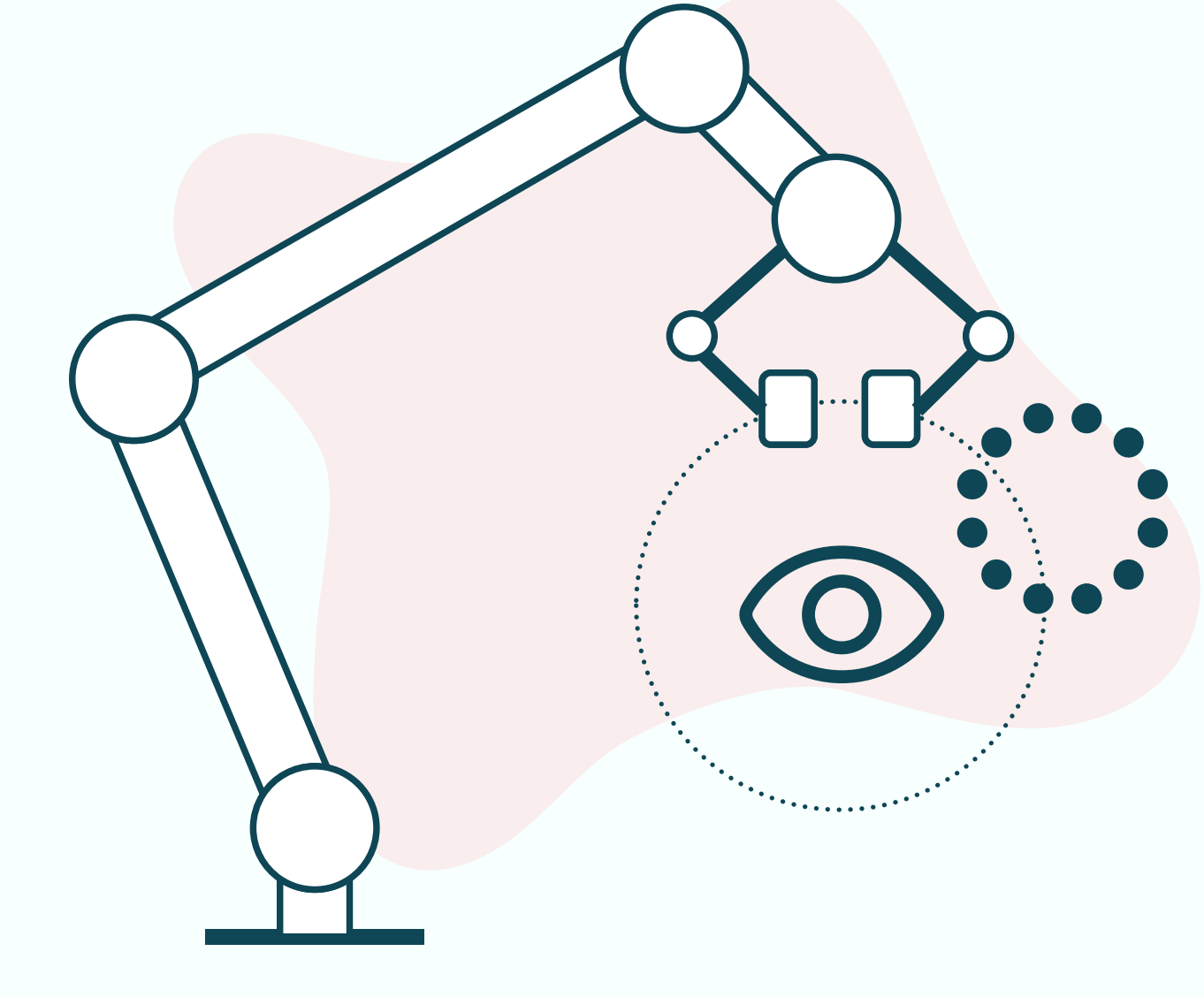
The world's first autonomous robotic surgery is performed successfully in a pig, demonstrating the potential for future AI-driven surgical systems.



2021

ADVANCEMENTS IN ROBOTIC MICROSURGERY

The use of robotics in microsurgery advances with the development of robotic systems for delicate procedures like eye surgery and microvascular anastomosis.



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