



Universidad de la República
Uruguay



núcleo de ingeniería biomédica

Ingeniería Clínica

Curso de agosto a diciembre 2024

**nib - núcleo de ingeniería biomédica de las
Facultades de Medicina e Ingeniería**

www.nib.fmed.edu.uy

Gestión de Mantenimiento de Equipos Biomédicos y su selección durante la fase de proyecto de un hospital

12 de noviembre de 2024

Franco Simini, Isabel Morales y Pablo Sánchez

www.nib.fmed.edu.uy



IFMBE
Clinical Engineering Division

Global Clinical Engineering Success Stories

Pasteur Hospital in Montevideo

2016

Selection of Biomedical Equipment during
architectural design of premises

Aporte de la Ingeniería Clínica en el proyecto de un nuevo hospital

Proyecto de Edificio Nuevo del Hospital Pasteur, Montevideo:

- Emergencia
- Block quirúrgico de 8 salas
- Medicina Crítica
- Imagenología básica

Hospital Pasteur de Montevideo y su anexo, calle de por medio



Biomedical and Clinical Engineering into New Hospital Design and Construction

Clinical Engineers work with:

- Administrators
- Architects
- Clinicians

to define:

- List of Biomedical Equipment
- Maintenance Policies
- Purchase Procedure

Results

217 types medical equipments were specified

Teaching model derived to use as practical work

For the first time in Uruguay, equipment specified before the building was build

Pneumatic messaging reduces 25% of internal circulation

Surgical video included in Electronic Clinical Record

Discussion

Contract (“convenio”) signed by H. Pasteur (ASSE) & NIB (Universidad de la República)

An interdisciplinary work to **better choose equipment for clinical use**, before the premises were build.

Valuable input was given to architects: dimensions for autoclave, circulation, surgical instruments & communication

The University has obtained experience to be used as example in **Clinical Engineering Teaching**.

Discussion 2

Suggestion to install 6 stations pneumatic messaging system, to link new & old buildings

Suggestion to install cameras & monitors in surgical block to record still and moving images (DICOM & CDA formats) in Electronic Clinical Record (TERMOPLANTE project by NIB).

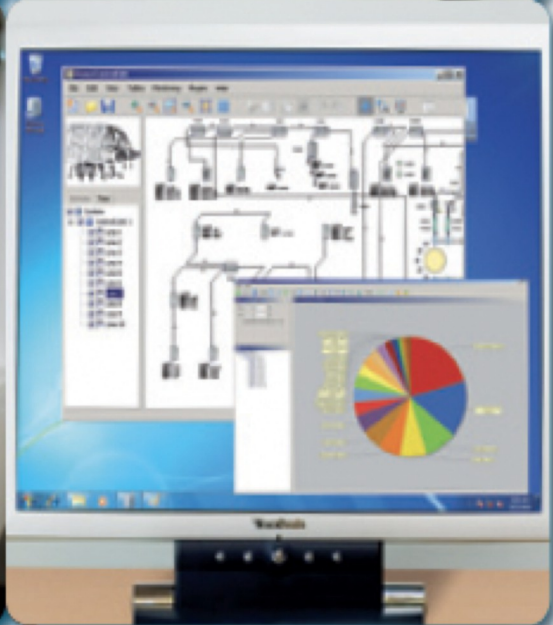
Correo neumático para unir pisos y edificios



Muestras de sangre

La farmacia hospitalaria

Identificación de usuarios

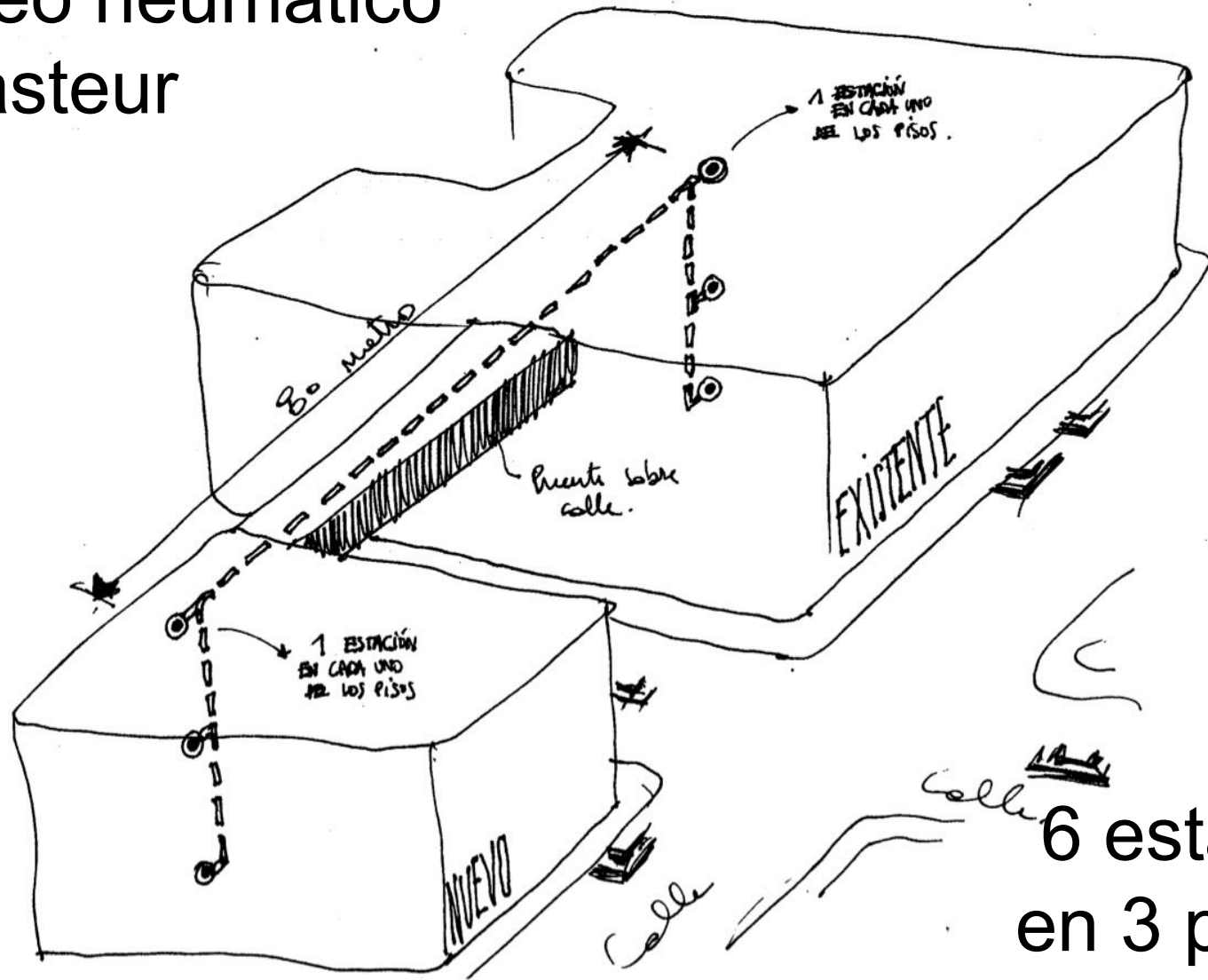


Correo neumático
H. Pasteur

Traslado de:

Farmacia
Notas
Muestras
Elementos
menores

Correo neumático H. Pasteur



6 estaciones
en 3 pisos de
2 edificios

planteo reconocido tubo neumático Pasteur.

Discussion 3

Long term savings in terms of:

adequate purchases

better matching of premises with equipment

better maintenance from first day

Gracias

www.nib.fmed.edu.uy