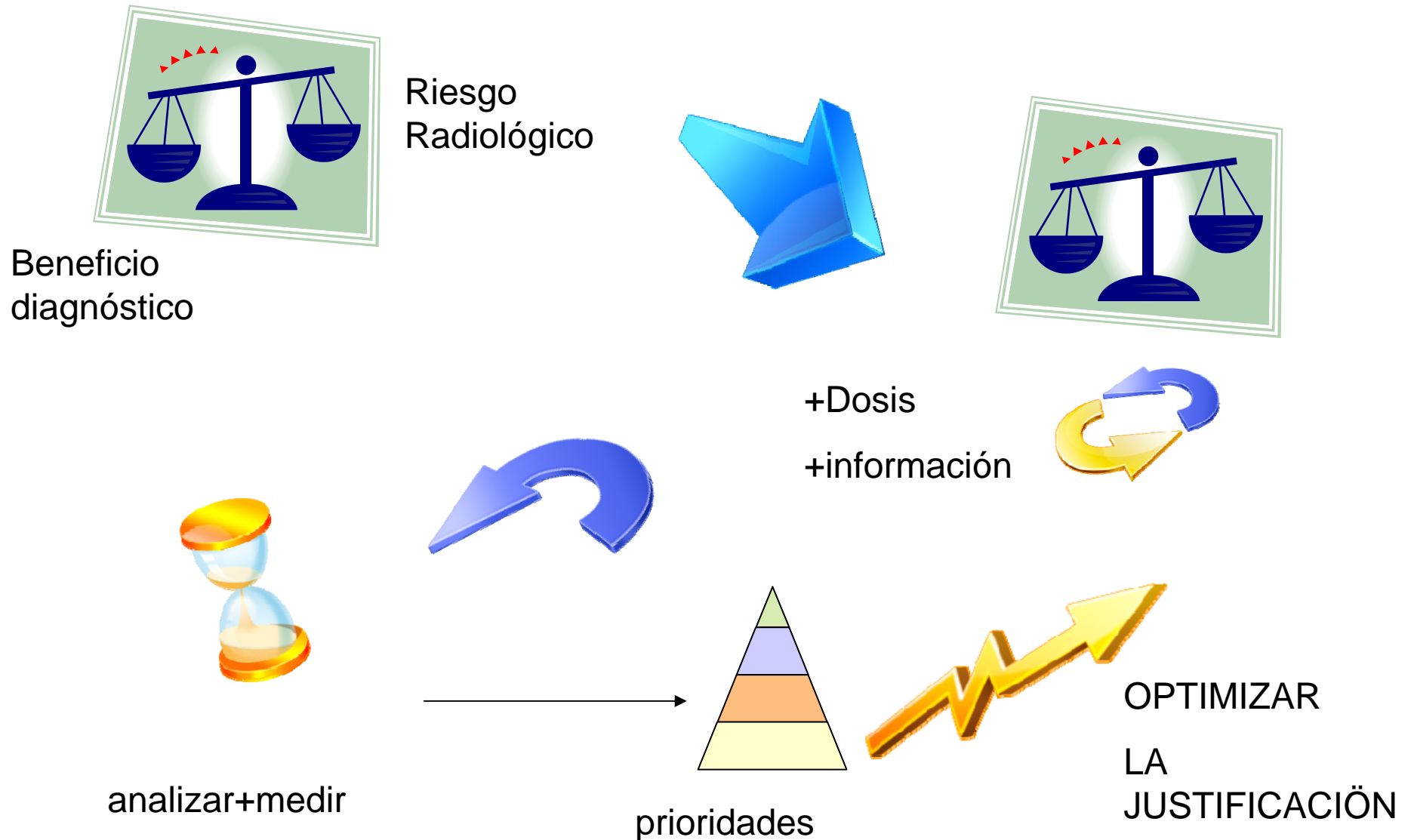
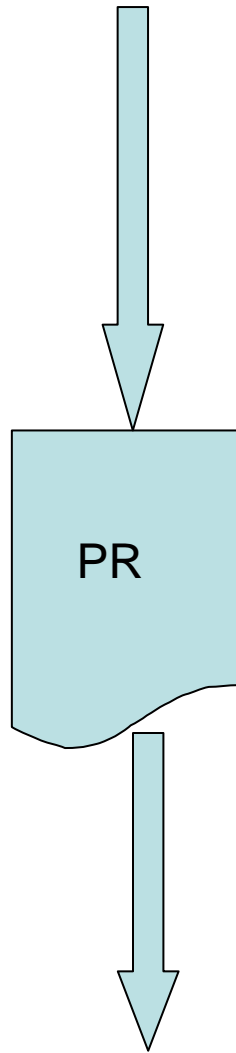
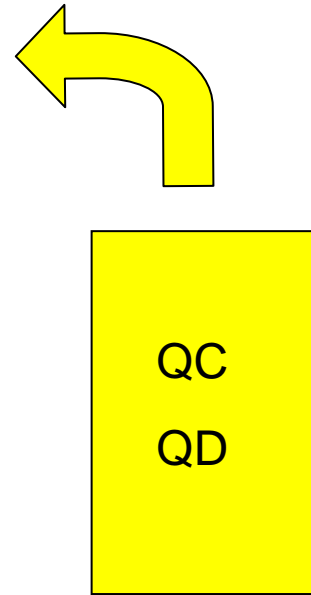


Justificación y Optimización

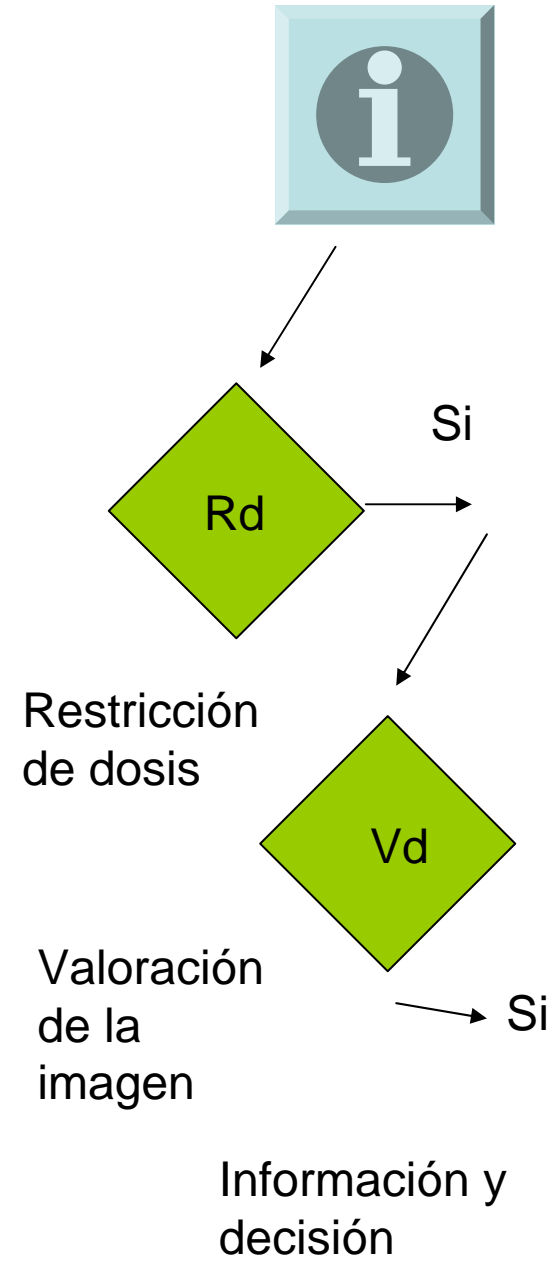




Obtención de la imagen diagnóstica



Sistema de control



Restricciones de Dosis

Usar
BSS
155

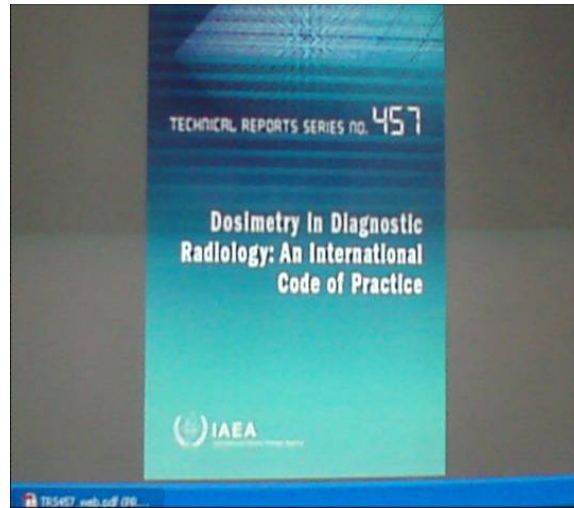


Generar

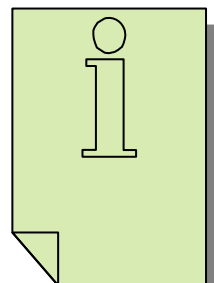


Protocolos de Medición

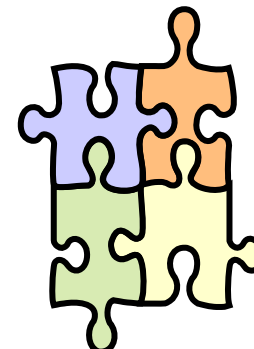
Usar TRS
457

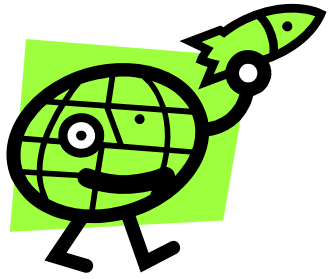


Generar
por
práctica

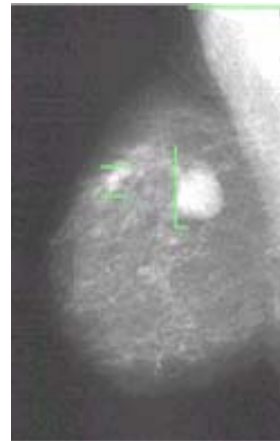


Complementar
y ensamblar

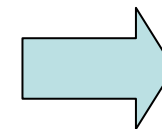
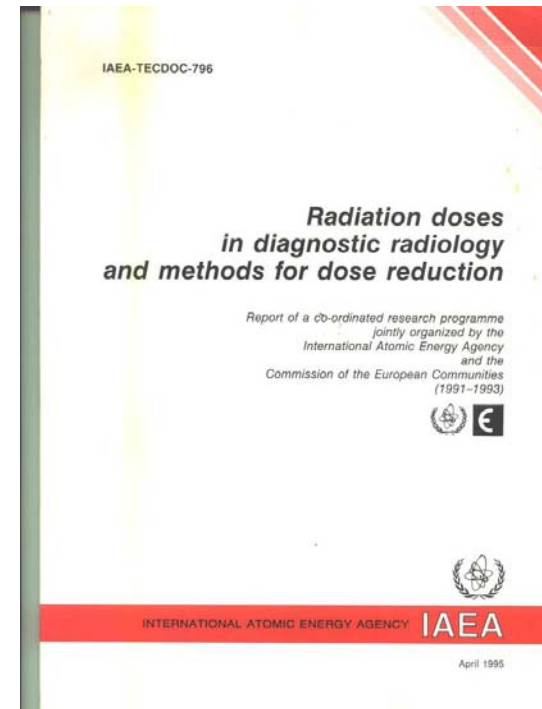




Antecedentes y experiencia en Control y reducción de dosis en radiodiagnóstico



En los 90 s



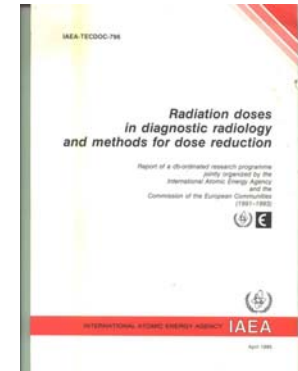
Participó y generó

Mediciones ,métodos ,registros



Mediciones con pacientes

Mediciones de parámetros en equipos



COORDINATED RESEARCH PROGRAMME
"RADIATION DOSES IN DIAGNOSTIC RADIOLOGY AND METHODS FOR REDUCTION"

ADDRESS: VIAMONTE 1742 - (1055) Bs.As. • PHONE: 40-3487/89 • FAX: 954-0724
DEFENSA 120 - 5° ROOM 5162 - (1345) Bs.As. • PHONE: 30-6533 • FAX: 331-3310

PATIENT RELATED DATA. N°

AGE:

SEX: M F

HEIGHT: cm.

WEIGHT: kg.

CHEST PA PROJECTION DATA

- PATIENT THICKNESS IN THE CENTRE OF THE BEAM cm.

- FILM SIZE cm. x cm.

- FILM FOCUS DISTANCE (FFD) cm.

- EXPOSURE TIME ms.

- TUBE CURRENT ma. or mas.

DOSE RELATED DATA

- TLD N° _____

- TL READING _____

- BACKGROUND (BKG) _____

- NET TL (TL-BKG) _____

- DOSE mgy.

MEDICAL CENTER RESPONSIBLE _____ RESEARCH RESPONSIBLE _____ RESEARCH COORDINATOR _____

Control de Colimación

Io N° 1 Técnica Empleada

longitud Foco-Albúcula: 100 cm Kvp: 60
mAs: 2,5

Esquema de Referencia

RESULTADOS

Colimación	bien	error	Contraste	bien	error
Longitud. sup	Si	-	Longitud. Sup.	-	- cm.
Longitud. Inf.	Si	-	Longitud. Inf.	No	0,85 cm.
Transv. Der.	Si	-	Transv. Der.	-	- cm.
Transv. Izq.	Si	-	Transv. Izq.	No	0,85 cm.
Lineas			Dist. entre ejes.	Si	1,35 cm.

Resolución lineal incidente: 1°/135 Grados.

Observaciones:
Mediciones efectuadas con colimador manual en

Mediciones de dosis + Acciones correctivas = Reducción de dosis

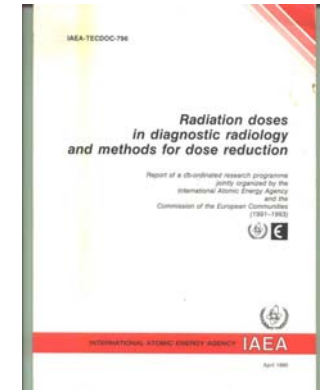
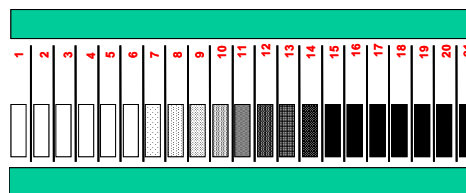
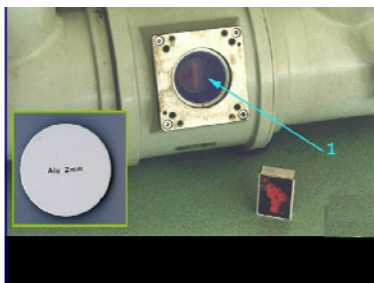


TABLE I. SUMMARY OF THE MEASUREMENTS OF PATIENT ENTRANCE SURFACE DOSE (ARGENTINA)

HOSPITAL	X RAY ROOM	EXAMINATION	DOSE PRIOR TO QC (mGy)	DOSE AFTER QC (mGy)	DOSE REDUCTION IF ANY (%)	CORRECTIVE ACTIONS
1	1	Chest PA	0.48	0.34	29	Increase of filtration : 1 mm Al.
1	2	Chest PA	0.24	--	--	Replacement of X ray tube
2	3	Chest PA	0.43	0.31	28	Use of high voltage technique
1	4	Abdomen	5.10	3.31	35	Increase of filtration : 1 mm Al.
3	5	Breast	11.20	7.61	32	Increase of speed class of film/screen combination and reduction of kV
3	6	Breast	10.95	6.91	37	Increase of speed class of film/screen combination and reduction of kV



Una visión de lo posible



Dosis posibles

PRÁCTICA

Tórax PA



0.4 mGy



Conv SI

Conv Alto kV SI

Digital ?

CLS Fte



10 mGy

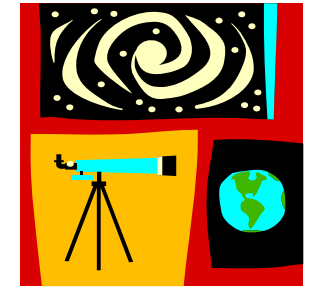


Si < 6 mGy Conv.

Si ? (+ 150 mAs)

Digital

Una visión de lo posible



Dosis posibles

PRÁCTICA

Radiosc



25mGy/
min



Convencional con II
o Digital FP Si

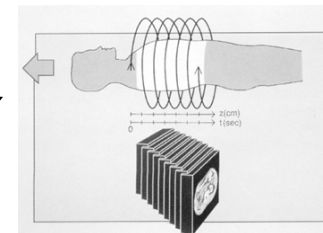
TC Abd



25 mGy



TC conv Si

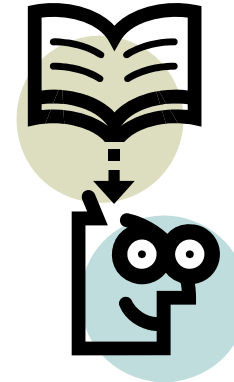


Helic conv / 16 c SI

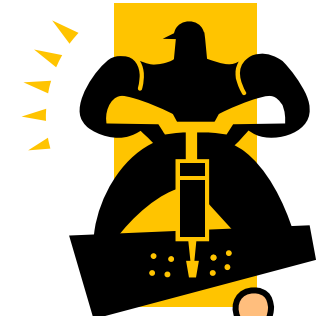
64 c si?



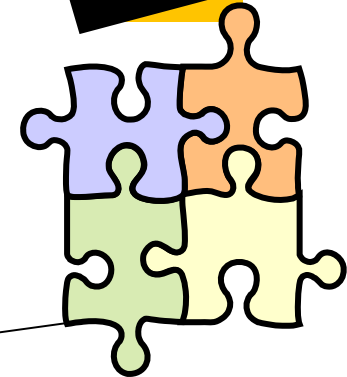
PROPONGÁMONOS
Algunas Acciones



Desarrollar protocolos específicos por práctica



Aplicar sistemas de control y reducción de dosis con la tecnología actual local



Gracias

Lic.Alejandro La Pasta

Radiofisica sanitaria MSal