

# Goiania

Slides from a lecture given in Vienna (2013)  
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# Long-Term Follow-up (as July 2012)

## from the Assistance Centre for Radiation Victims - CARA

- Group I: 50 patients
  - ARS and/or CRS
  - WBD  $\geq 0.20$  Gy
  - Body burden  $\geq \frac{1}{2}$  ALI ( $\geq 50$   $\mu$ Ci)
- Children of Group I patients: 36
  
- Group II: 44 patients
  - Exposures or body burdens below the limits for Group I
- Children of Group II patients: 34
  
- Group III: 835 persons
  - “Social” victims
  - People living close to the main foci of contamination
  - Legally included

# Mortality

[http://www.sgc.goias.gov.br/upload/links/arq\\_590\\_RevistaCesio25anos.pdf](http://www.sgc.goias.gov.br/upload/links/arq_590_RevistaCesio25anos.pdf)

	<b>Total number of persons since 1987</b>	<b>Deaths (male)</b>	<b>Deaths (female)</b>	<b>Total of deaths</b>	<b>Alive in the Group (as July 2012)</b>
<b>Deaths at the time of the accident (ARS)</b>	-	2	2	4	-
<b>GI</b>	56	5	1	6	50
<b>CGI</b>	38	2	0	2	36
<b>GII</b>	46	1	1	2	44
<b>CGII</b>	34	0	0	0	34
<b>GIII</b>	887	32	19	51	835

# Mortality in general (as July 2012)

- GI, CGI, GII and CGII
  - *ARS* (4)
  - Liver cirrhosis (one *ARS* survivor)
    - Autopsy findings: esophagus and prostate carcinoma
  - Other usual conditions
  - GIII: usual conditions

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# Mortality by cancer (October 1987 to December 2012)

Source: CARA – Ms. Martha Almeida

Site	Group	Number
Maxilla	III	1
<i>Tonsil</i>	<i>I/III</i>	2
<i>Bladder</i>	<i>I</i>	<i>1</i>
Uterine cervix	III	2
Scalp	III	1
Breast	III	2
Mouth	III	1
Liver	III	1
Tongue	III	1
Pharynx	III	2
Skin melanoma	III	1
Non-specified	III	1

# Morbidity

- Usual conditions
- Mental disorders
  - Goiás Federal University study of 2011
    - Prevalence of 42.5% of depressive manifestations in the followed-up patients of GI and GII (against 3-11% in the general population – Brazilian Association of Psychiatry)

# **Epidemiological Study on Morbi-mortality by Cancer in Goiânia**

**(Koifman S. et ali, 2007)**

**{negative results}**