



# EMERGENCY TREATMENT OF EXTERNAL RADIONUCLIDES CONTAMINATIONS

## USERS' FEEDBACK

The efficacy of CEVIDRA® cream is confirmed on real cases of contaminations in nuclear facilities.

URANIUM / PLUTONIUM / AMERICIUM	Contaminated body area	Initial measure of contamination	Elapsed time before treatment	Final measure and number of treatments
Case 1 (U and Pu)	Head	70 c/s (3,2 Bq/cm <sup>2</sup> )	< 2 h	<b>Fully decontaminated.</b> 0 c/s and 0 Bq/cm <sup>2</sup> after 1 treatment
Case 2 (Pu)	Head	1,6 Bq/cm <sup>2</sup>	< 2 h	<b>Fully decontaminated.</b> 0 Bq/cm <sup>2</sup> after 1 treatment.
Case 3 (U and/or Pu no information)	Head	14 c/s alpha 10 c/s beta	< 2 h	<b>Fully decontaminated.</b> 0 c/s after 2 treatments.
Case 4 (U)	Head	2 Bq/cm <sup>2</sup>	< 15 min	Incompleted decontamination. <u>Misuse had been confirmed from the user.</u>
Case 5 (U and Pu)	Head + upper limbs	32 Bq/cm <sup>2</sup>	< 2 h	<b>Fully decontaminated.</b> 0 Bq/cm <sup>2</sup> after 2 to 5 treatments (depending on the location).
Case 6 (U and/or Pu no information)	Head	2 Bq/cm <sup>2</sup>	< 2 h	<b>Fully decontaminated.</b> Already 0 Bq/cm <sup>2</sup> after a single treatment. 2 treatments were performed.
Case 7 (Pu and Am)	Hands and fingers	2 c/s	< 2 h	<b>Fully decontaminated.</b> 0 c/s after 3 treatments.
Case 8 (U and Pu)	Upper limb	0,2 Bq/cm <sup>2</sup>	< 2 h	<b>Fully decontaminated.</b> 0 Bq/cm <sup>2</sup> after 1 treatment.
Case 9 (Pu)	Head and upper limb	2 c/s	< 1 h	<b>Fully decontaminated.</b> 0 c/s after 2 treatments.

COBALT	Contaminated body area	Initial measure of contamination	Elapsed time before treatment	Final measure and number of treatments
Case 1	Head	15 c/s	< 1 h	<b>Fully decontaminated.</b> 0 c/s after 1 treatment.
Case 2 (Co and Zr)	Head	70 c/s	< 1 h	<b>Fully decontaminated.</b> 0 c/s after 1 treatment.
Case 3	Head	220 c/s	< 2 h	<b>Fully decontaminated.</b> 0 c/s after 1 treatment.
Case 4	Head	40 c/s	< 1 h	<b>Fully decontaminated.</b> 0 c/s after 1 treatment.

ZIRCONIUM	Contaminated body area	Initial measure of contamination	Elapsed time before treatment	Final measure and number of treatments
Case 1	Head	70 c/s	< 1 h	<b>Fully decontaminated.</b> 0 c/s after 1 treatment.
Case 2	Head	10 c/s	< 1 h	<b>Fully decontaminated.</b> 0 c/s after 1 treatment.
Case 3 (Co and Zr)	Head	70 c/s	< 1 h	<b>Fully decontaminated.</b> 0 c/s after 1 treatment.

SILVER	Contaminated body area	Initial measure of contamination	Elapsed time before treatment	Final measure and number of treatments
Case 1	Head	5 c/s	< 2 h	<b>Fully decontaminated.</b> 0 c/s after 1 treatment.
Case 2	Head	10 c/s	< 2 h	<b>Fully decontaminated.</b> 0 c/s after 1 treatment.

CESIUM	Contaminated body area	Initial measure of contamination	Elapsed time before treatment	Final measure and number of treatments
Case 1	Head et upper limb	250 Bq/cm <sup>2</sup>	< 30 min	<b>Fully decontaminated.</b> 0 Bq/cm <sup>2</sup> after 2 treatments.

Note: a treatment is a cycle of decontamination with Cevidra® performing an application and a rinse/wiping. The above cases are only those with complete information concerning the measure of the contamination. The data submitted in this document were recorded during a 14 months period. These data are based on feedback received after the use of Cevidra® cream on external contaminations in nuclear facilities with several radionuclides.

### Number of applications needed to obtain a complete decontamination

