ANNEXS

Annex 1. Card with General Recommendations, for patients receiving radiotherapy

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| * Cleanliness
 | * Patients should wash the radiated skin every day with warm water and soap without perfume.
* Washcloths that might cause friction are therefore discouraged.
* Drying with a soft towel is recommended.
 |
| * Deodorants
 | * Patients may continue to use anti-perspirant deodorants as long as the underarm area is not being radiated.
 |
| * Other products for the skin
 | * Perfumed products that might contain irritating chemicals or metals are discouraged.
* Gels or creams should be applied at room temperature.
 |
| * Hair removal, shaving
 | * An electric razor is recommended. Use of waxes or other hair removal products are discouraged.
* Patients are advised not to shave the underarm area if it is within the treatment zone.
 |
| * Swimming
 | * Patients may continue to swim in chlorinated pools as long as their skin is completely healed but must rinse off and apply a moisturizing lotion.
 |
| * Heat and cold
 | * The application of direct heat or cold in the radiated area is discouraged, *i.e.* ice or electric heating pads.
 |
| * Exposure to the sun
 | * Excess exposure to the sun is discouraged, recommending covering the treated area with proper clothing and applying a high factor sunscreen protector.
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ANNEX 2. Question for the assessment of the skin as an integral part of the patient’s care4

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| What? | What are we evaluating?What do we need to see?What aspect does the skin present?What other structures are in the treatment field?What is the patient informing us?What conditioning of the skin favors the reaction?What has changed?What does it produce? |
| Why? | Why has this occurred?Why are things changing (cause and effect)? |
| How? | How should we treat?How to arrive at the correct management decisions? |

ANNEX 3. Fitzpatrick Classification of skin types17

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Type I** | **Type II** | **Type III** | **Type IV** | **Type V** | **Type VI** |
| White skin. Always burns. Never tans. | White skin. Always burns. Tans with difficulty | Medium color skin. Sometimes slightly burns. Average tanning. | Light brown skin color. Rarely burns. Tans easily. | Brown skin. Never burns. Tans very easily. | Dark skin, very pigmented. Never burns. Tans very easily. |

ANNEX 4. Components and mechanism of action of the medical device based on hyaluronic acid 23

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| --- | --- |
|  |  Mechanism of action |
| Hyaluronic acid | * Provides mechanical and physical resistance to tissues.
* Provides tissues with viscoelastic and hydrating properties.
* Takes part in the regulation of cellular proliferation, differentiation and migration.
* Encourages cellular stability and tissue integrity.
 |
| Gluconolactone | * Reinforces skin as barrier.
* Has a moisturizing and antioxidant property.
* Presents additional benefits in the prevention of photo ageing that appears in radiotherapy.
 |
| Poliacrilamide  | * Absorbs water easily, which is why in practice, it is a hydrogel.
 |
| Xanthan gum | * Provides stability *vis a vis* heat.
* Provides tolerance in the face of strong acids and bases.
* Maintains stable viscosity in a wide range of temperatures.
* Provides resistance to enzymatic degradation.
 |

Annex 5. Questions and answers of the survey conducted on the panel of experts

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| --- | --- | --- |
| QUESTIONS | CHOICE OF ANSWER | PHYSICIAN RESPONSE (%) |
| 1. How much do you agree with the following sentence:In RT treatment, education and recommendations regarding the care of the skin should be made from the beginning. | Agree completely | 100 |
| Partially agree  | 0 |
| Disagree | 0 |
| No opinion  | 0 |
| 2. Given the diversity in phenotypes and comorbidities of our patients, how frequently should they be sent to dermatology for consultation before the beginning of RT? | Always | 5 |
| Very frequently (80% or more of patients)  | 5 |
| Frequently (between 50 and 80% of patients) | 0 |
| Sometimes (between 20 and 50% of patients) | 55 |
| A Little (up to 20% of patients) | 30 |
| Never | 5 |
| 3. How much do you agree with the following sentence:In the management of RT, should the use of topical non-pharmacologic agents (dermocosmetics) be recommended from the very first session? | Agree completely  | 90 |
| Partially agree  | 5 |
| Disagree  | 5 |
| No opinion  | 0 |
| 4. How much do you agree with the following sentence:Given the high incidence of the appearance of skin lesions (80%), the use of topical pharamacologic treatments should be recommended as preventive (medical device) from the first session.  | Completely agree  | 80 |
| Partially agree  | 15 |
| Disagree  | 5 |
| No opinion  | 0 |
| 5. How much do you agree with the following sentence:In RT, education and recommendations should be carried out (or continued) regarding skin care once radiotherapy has begun, although no RD has appeared. | Completely agree  | 100 |
| Partially agree  | 0 |
| Disagree  | 0 |
| No opinion  | 0 |
| 6. Once RD grade 1 appears, aside from the recommendations given at the beginning of RT, how frequently should there be a change from dermocosmetics to the medical device? | Always | 10 |
| Very frequently (80% or more of patients) | 5 |
| Frequently (between 50 and 80% of patients) | 15 |
| Sometimes (between 20 and 50% of patients) | 45 |
| A Little (up to 20% of patients) | 10 |
| Never | 15 |
| 7. Once RD grade 1 appears, aside from the recommendations given at the beginning of RT, how frequently should topical steroids be used to lessen symptoms?  | Always | 0 |
| Very frequently (80% or more of patients) | 0 |
| Frequently (between 50 and 80% patients) | 5 |
| Sometimes (between 20 and 50% of patients) | 5 |
| A Little (up to 20% of patients) | 15 |
| Never | 75 |
| 8. In the treatment of RD grade 1, along with the measures recommended at the beginning of RT, how frequently do you recommend changing from dermocosmetics to the medical device? | Always | 0 |
| Very frequently (80% or more of patients) | 15 |
| Frequently (between 50 and 80% of patients) | 0 |
| Sometimes (between 20 and 50% of patients) | 60 |
| A Little (up to 20% of patients) | 25 |
| Never | 0 |
| 9. When RD grade 2 appears, how frequently should patients be sent for consultation with the dermatology department?  | Always | 5 |
| Very frequently (80% or more of the patients) | 0 |
| Frequently (betwee 50 and 80% of patients) | 10 |
| Sometimes (betweem 20 and 50% of patients) | 15 |
| A Little (up to 20% of patients) | 70 |
| Never | 0 |
| 10. Once RD grade 2 appears, along with the measures recommended at the beginning of radiotherapy, how frequently do you change from dermocosmetics to the medical device? | Always | 5 |
| Very frequently (80% or more of patients) | 30 |
| Frequently (between 50 and 80% of patients) | 20 |
| Sometimes (between 20 and 50% of patients) | 35 |
| A Little (up tol 20% of patients) | 5 |
| Never | 5 |
| 11. In the treatment of patients with RD grade 2, along with the measures recommended at the beginning of radiotherapy, how frequently do you prescribe topical steroids to lessen symptoms? | Always | 0 |
| Very frequently (80% or more of patients) | 71 |
| Frequently (between 50 and 80% of patients) | 5 |
| Sometimes (between 20 and 50% of patients) | 19 |
| A Little (up to 20% of patienets) | 5 |
| Never | 0 |
| 12. In the treatment of patients with RD grade 2, along with the measures recommended at the beginning of radiotherapy, how frequently do you change from dermocosmetics to the medical device? | Always | 5 |
| Very frequently (80% or more of patients) | 55 |
| Frequently (between 50 and 80% of patients) | 0 |
| Sometimes (between 20 and 50% of patients) | 20 |
| A Little (up to 20% of patients) | 15 |
| Never | 5 |
| 13. When RD grade 2 appears, how frequently do you send your patients for consultation to the dermatology department? | Always | 0 |
| Very frequently (80% or more of patients) | 70 |
| Frequently (between 50 and 80% of patients) | 15 |
| Sometimes (between 20 and 50% of patients) | 5 |
| A Little (up to 20% of patients) | 5 |
| Never | 5 |
| 14. When RD grade 3 appears, along with the measures recommended at the beginning of radiotherapy, how frequently do you change from dermocosmetics to the medical device? | Always | 10 |
| Very frequently (80% de los pacientes o más) | 20 |
| Frequently (between 50 and 80% of patients) | 0 |
| Sometimes (between 20 and 50% of patients) | 5 |
| A Little (up to 20% of patients) | 10 |
| Never | 55 |
| 15. When RD grade 3-4 appears, in addition to the recommendations at the beginning of radiotherapy, how frequently do you add an inert paste or other measure to reduce the moisture of the lesion? | Always | 70 |
| Very frequently (80% or more of the patients) | 5 |
| Frequently (between 50 and 80% of patients) | 0 |
| Sometimes (between 20 and 50% of patients) | 15 |
| A Little (up to 20% of patients) | 5 |
| Never | 5 |
| 16. In the treatment of patients with RD grade 3, along with the measures recommended at the beginning of radiotherapy, how frequently do you prescribe topical steroids to lessen the symptoms?  | Always | 45 |
| Very frequently (80% or more of patients) | 40 |
| Frequently (between 50 and 80% of patients) | 10 |
| Sometimes (between 20 and 50% of patients) | 5 |
| A Little (up to 20% of patients) | 0 |
| Never | 0 |
| 17. In the treatment of patients with RD grade 3, along with the measures recommended at the beginning of radiotherapy, how frequently do you recommend changing to the medical device? | Always | 25 |
| Very frequently (80% or more of patients) | 25 |
| Frequently (between 50 and 80% of patients) | 20 |
| Sometimes (between 20 and 50% of patients) | 10 |
| A Little (up to 20% of patients) | 5 |
| Never | 15 |
| 18. How frequently does grade 4 RD present in your patients. | Always | 0 |
| Very frequently (80% or more of the patients) | 0 |
| Frequently (between 50 and 80% of patients) | 0 |
| Sometimes (between 20 and 50% of patients) | 0 |
| A Little | 55 |
| Never | 45 |
| 19. How much do you agree with the following sentence:After RT, education and recommendations on the care of the skin should be continued, to avoid or reduce the severity of late lesion (chronic RD) of the skin due to radiation. | Agree completely  | 95 |
| Partially agree  | 5 |
| Disagree | 0 |
| No opinion | 0 |
| 20. When RD grade 3-4 appears (chronic RD), how frequently should patients be sent for consultation to the dermatology department? | Always | 80 |
| Very frequently (80% or more of patients) | 10 |
| Frequently (between 50 and 80% of patients) | 0 |
| Sometimes (between 20 and 50% of patients) | 0 |
| A Little (up to 20% of patients) | 10 |
| Always | 0 |

ANNEX 6. List of dermocosmetics available in the Mexican market

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| --- | --- | --- |
| Commercial Name | Production industry | Ingredients |
| Cicaplast Baume | La Roche Possey | Copper, zinc, magnesium, panthenol and Madécassoside |
| Dermalibur barrier | Aderma | Beeswax, extract of Rhealba oatmeal plantulas, copper and zinc. |
| Trixera nutrition | Avene | Vegetable lipids and Sélectiose |
| Aquaphor repair ointment | Eucerin | Microcristalline wax, Ceresin, Panthenol, Glycerine, Bisabolol and lanolin |
| Cicalfate repair and protect cream | Avene | Thermal spring water, liquid paraffin, glycerin, zinc oxide, copper sulfate, arginine, beeswax, microcristalline wax, and zinc sulfate |
| Radiocare ® | Cantabria Labs | SCA 4% natural component with regenerative and antioxidant properties. Calendula (Calendula officinalis), with skin repair and softening properties |
| Lubriderm ® Moisturizing cream. normal skin, sensitive and/or with sunscreen | Johnson & Johnson Consumer Products Company | Propilenglicol Dicaprilate; Poliethylene Stearate 40; Cetyl Alcohol; Glycerine; Mineral Oil; Emulsifying wax; Dimeticone; Parabens; Hydantoin |
| Eucerin pH5 Moisturizing Lotion | Eucerin | Water, Glycerin, Panthenol, C15-19 Alkane, Cetyl Palmitate, Caprylic-Capric-Triglyceride, Cetyl Alcohol, Hydrogenated Coco-Glycerides, Polybutene, Glyceryl Stearate SE, Citric Acid, Sodium Citrate, Tocopheryl Acetate, Sorbitan Stearate, Sodium Cetearyl Sulfate, Stearyl Alcohol, Dimethicone, Carbomer, Sodium Hydroxide, Tapioca Starch, Trisodium EDTA, Pentylene Glycol, Caprylyl Glycol, Phenoxyethanol, Benzyl Alcohol, BHT, Perfume |

Annex 7. List of Medications CORTIOCOIDS available in the Mexican market

High potency

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| --- | --- | --- |
| Active ingredient | Presentation | Commercial Name |
| Clobetasol 0.05% | Cream | Clobesol |
| Clobetasol 0.044% | Cream | Pirovate |
| Clobetasol 0.044% | Cream and ointment  | Dermatovate |
| Clobetasol 0.05% | Lotion | Clobex pro |
| Clobetasol 0.05% | Cream | Topifort |
| Betamethasone 0.10g | Cream | Betnovate |
| Betamethasone 1mg/ml | Lotion | Betnovate lotion |
| Betamethasone 0.05% | Cream | Diprosone |

Annex 8. Drying agents

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| --- | --- | --- |
| Commercial Name | Active Ingredient | Presentation |
| Domeboro | Calcium acetate and aluminum sulfate | Powder to be dissolved |
| Dalidome | Zinc, copper and camphor  | Powder to be dissolved |
| Soyaloid | Coloid bath | Powder to be dissolved |
| Debrisan | Dextranomer | Powder |
| Cytellium | Zinc oxide | Liquid Solution |
| Alibur Water | Zinc sulfate and copper sulfate | Liquid Solution |

Annex 9. Topical Antibiotics

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| --- | --- | --- |
| Commercial Name | Active Ingredient | Presentation |
| Simpebac | Mupirocine 2% | Ointment |
| Bactroban | Mupirocine 2% | Ointment and Cream |
| Fucidin | Fusidic Acid 2% | Ointment and Cream |

Annex 10. Topical + steroid antibiotics

|  |  |  |
| --- | --- | --- |
| Commercial Name | Active Ingredient | Presentation |
| Fucicort | Fusidic acid + Bethamentasone | Cream |
| Aceler-Co | Fusidic acid + Bethamentasone | Cream |

ANEXO 11. GLOSSARY

* *DNA*:deoxyribonucleic acid
* *Gy*: Energy absorbed per unit of mass in a certain point. The unit is the Joule per kilogram (J kg-1) and it is given the special name of gray (Gy).
* *Bolus*: Material (tissue equivalent) that is put into contact with a radiated area to correct superficial irregularities or to give adequate form to the dose distribution in depth for the anatomical structures to be protected or radiated.
* *Minimum Erythema Dose (MED)*: dose of effective UV that causes perceptible redness in human skin not previously exposed.
* *Phototherapy*: treatment of various skin conditions through ultraviolet radiation.
* *Sun Protective Factor (SPF)*: a protective factor that indicates the time during which we are protected from the sun.
* *IL-1*, interleukin 1: belongs to the group of proteins that manufactures leukocytes and other cells of the body. Macrophages mainly manufacture interleukin-1, which helps lymphocytes fight infections.
* *IL-2*, interleukin 2: component of the cytokine immune system. Acts as a growth factor of T lymphocytes, induces all the types of subpopulations of lymphocytes and activates the proliferation of B lymphocytes.
* *Interferon IFN*: signaling proteins produced and secreted by the immune cells as a response to the presence of various pathogens, such as virus, bacteria, parasites and tumor cells.
* *X-Rays*: ionizing electromagnetic radiation.
* *Radiosensitizers*: substances that sensitize tumor cells to radiotherapy. Also known as radiosensitizers.
* *UV rays*: ultraviolet rays; electromagnetic radiation that includes rays with a wavelength that ranges from 400 nanometers to 15. Its name (ultraviolet) is linked to the range of wavelength that begins beyond the visible spectrum that we observe as the color violet.
* *Tumor Necrosis Factor, TNF*:protein of the cytokine group released by the cells of the immune system that has action in inflammation, apoptosis and joint destruction.