Key Points of Mistletoe Therapy

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Basic Rules of Mistletoe Therapy

1) Inject in the abdomen (preferred), thigh or upper arm
2) Most protocols are 3x/week
3) Start at a low dose
4) Work up in steps
5) Stay at the dose where there is a positive reaction
6) Increase the dose once no more reaction

Normal Dose Escalation

Most patients

1mg → 5mg → 10mg → 20mg → 30mg → 50mg

Patients with tumours, or who had stage III disease continue:

70mg → 80mg → 100mg

Patients with tumours continue:

100mg → 150mg → 200mg → 100mg → 150mg → 200mg

Helixor® – 8 Different Doses

Ampoule	Volume	Content (fresh mistletoe)
Helixor® 0.1 mg	1 ml	extract from 0.1 mg mistletoe
Helixor® 1 mg	1 ml	extract from 1 mg mistletoe
Helixor® 5 mg	1 ml	extract from 5 mg mistletoe
Helixor® 10 mg	1 ml	extract from 10 mg mistletoe
Helixor® 20 mg	1 ml	extract from 20 mg mistletoe
Helixor® 30 mg	1 ml	extract from 30 mg mistletoe
Helixor® 50 mg	1 ml	extract from 50 mg mistletoe
Helixor® 100 mg	2 ml	extract from 100 mg mistletoe

Mode of Application: Series Packs

Package	SE I	SE II	SE IV
Doses per pack	1mg	10mg	20mg
	1mg	10mg	20mg
	1mg	20mg	30mg
	5mg	20mg	30mg
	5mg	30mg	50mg
	5mg	30mg	50mg
	10mg	30mg	50mg

NOTE: SE III is used only for rapid dose increases for inpatients, followed by SE IV.

Mode of Application: Original and Great Packs

OP (Original Pack) available in **8 Ampoules** of the same dose:

- 0.1mg, 1mg, 5mg, 10mg, 20mg, 30mg, 50mg, 100mg

GP (Great Pack) available in **50 Ampoules** of the same dose:

- 50mg, 100mg

Administration – Active Therapy SOLID Tumour

Administration time	Dose (mg)			PACK
	Monday	Wednesday	Friday	
Week 1	1	1	1	SE I
Week 2	5	5	5	
Week 3	10	10	10	SE II
Week 4	20	20	30	
Week 5	30	30	20	SE IV
Week 6	20	30	30	
Week 7	50	50	50	
Week 8	70 (20+50)	70 (20+50)	80 (30+50)	SE IV + 50mg OP
Week 9	80 (30+50)	100 (50+50)	100 (50+50)	
Week 10	100 (50+50)	150	200	100mg GP + 50mg OP
Week 11 **and on**	100	150	200	

Administration – Prevention of Recurrence

Administration time	Dose (mg)			PACK
	Monday	Wednesday	Friday	
Week 1	1	1	1	SE I
Week 2	5	5	5	
Week 3	10	10	10	SE II
Week 4	20	20	30	
Week 5	30	30	20	SE IV
Week 6	20	30	30	
Week 7	50	50	50	
Weeks 8 and 9	BREAK			
Week 10	20	20	30	SE IV
Week 11	30	50	50	
Week 12	50	20	20	SE IV
Week 13	30	30	50	
Week 14	50	50	2 wk BREAK	Repeat 2x SE IV then 2wk break

Administration – Sensitive Patients SOLID Tumour

Administration time	Dose (mg)			PACK
	Monday	Wednesday	Friday	
Week 1	1	1	1	OP 1mg
Week 2	1	1	1	
Week 3	1	1	5	OP 5mg
Week 4	5	5	5	
Week 5	5	5	5	
Week 6	5	10	10	OP 10mg
Week 7	10	10	10	
Week 8	10	10	10	
Week 9	20	20	20	OP 20mg
Week 10	20	20	20	
Week 11 **+**	20	20	Then 30mg etc until reaction	

Administration – Leukemia/Lymphoma/Myeloma

Administration time	Dose (mg)
	DAILY
1st 8 days	1mg OP
2nd 8 days	5mg OP
3rd 8 days	10mg OP
Week 4	SE II
Week 5	SE IV
Week 6	SE IV + 50mg OP
Maintenance	Will depend on the cancer: 100mg up to 200mg daily or rotation of doses 3x/week

FREE PATIENT ADVICE
http://www.helixor.com/healthcare-professionals/medical-advisory-service/anamnestic-form/

Duration of Helixor® Therapy

I. In case of prevention of relapse after curative surgery:
   - intensive treatment in the first two years, followed by
   - phasing out:

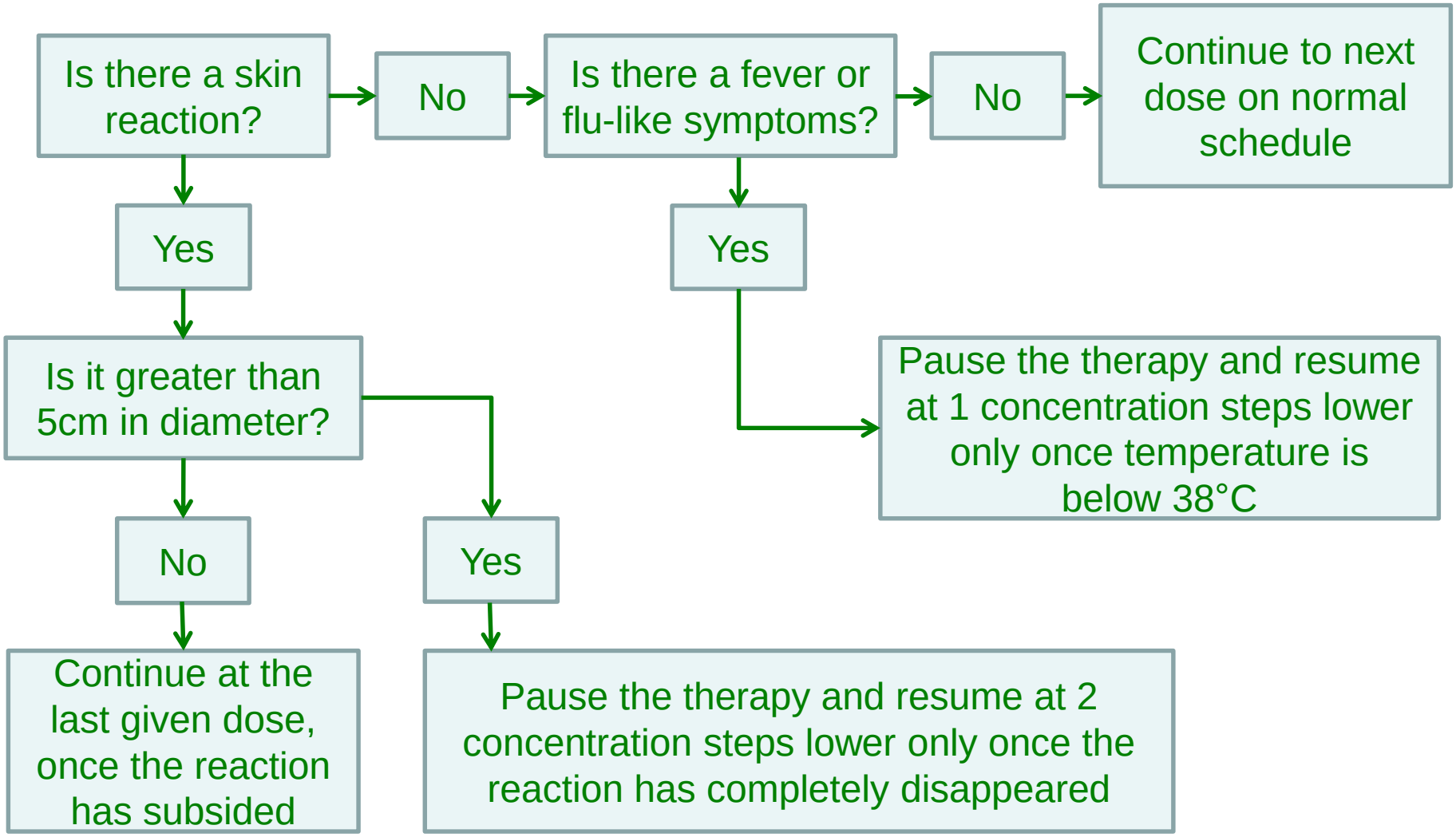
     ⇒ *Third year: 3 weeks pause after every 2nd series pack*
     (= 13 series per year)

     ⇒ *Fourth year: 4 weeks pause after every 2nd series pack*
     (= 11 series per year)

     ⇒ *Fifth year: 8 weeks pause after every 2nd series pack*
     (= 8 series per year)

II. In case of active treatment where cancer is still present:
   - no pauses
   - Helixor® as a permanent, palliative treatment

What to Do With Common/Desired Reactions



Choice of Helixor® A

Characteristics:	lower lectin content, less cytotoxic, well-tolerated, strong DNA-protection
Patient:	• reduced general state of health • very sensitive patients • children, youth
Concomitant therapies/diseases:	• before and during chemo or radiation • allergic/atopic disease • intolerance to other mistletoe preparations • autoimmune disease
Tumour:	• brain, head and neck • lung • prostate • some lymphoma, leukemia, myeloma

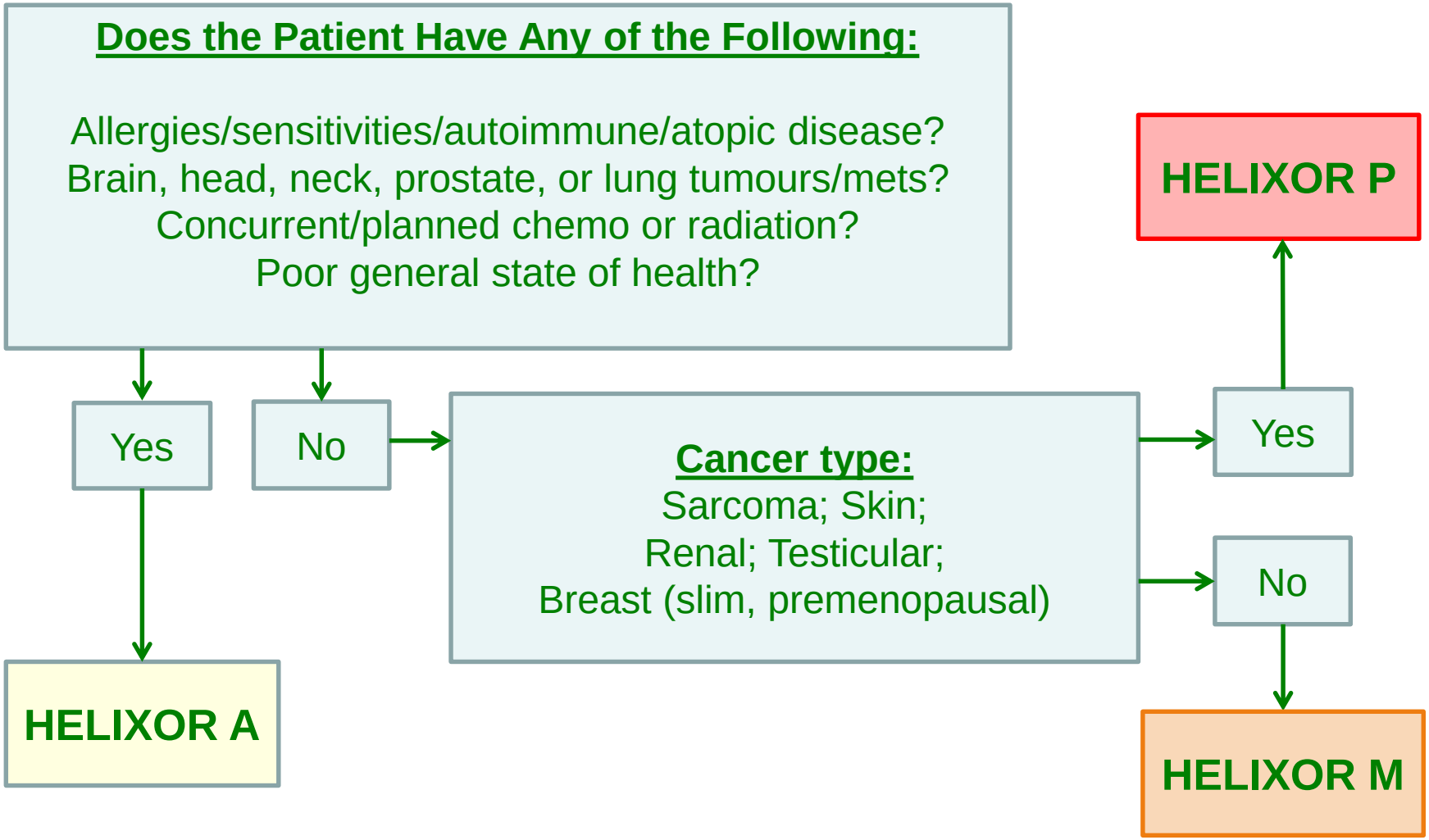
Choice of Helixor® M

Characteristics:	higher lectin content, more cytotoxic, strongest inflammatory reaction, greatest tumour-inhibiting effect
Patient:	• relatively good general state of health • robust patients
Tumour:	• any solid tumour where you don't need A
Special administrations:	• IV, intratumoural • osteoarthritis (i.c.)

Choice of Helixor® P

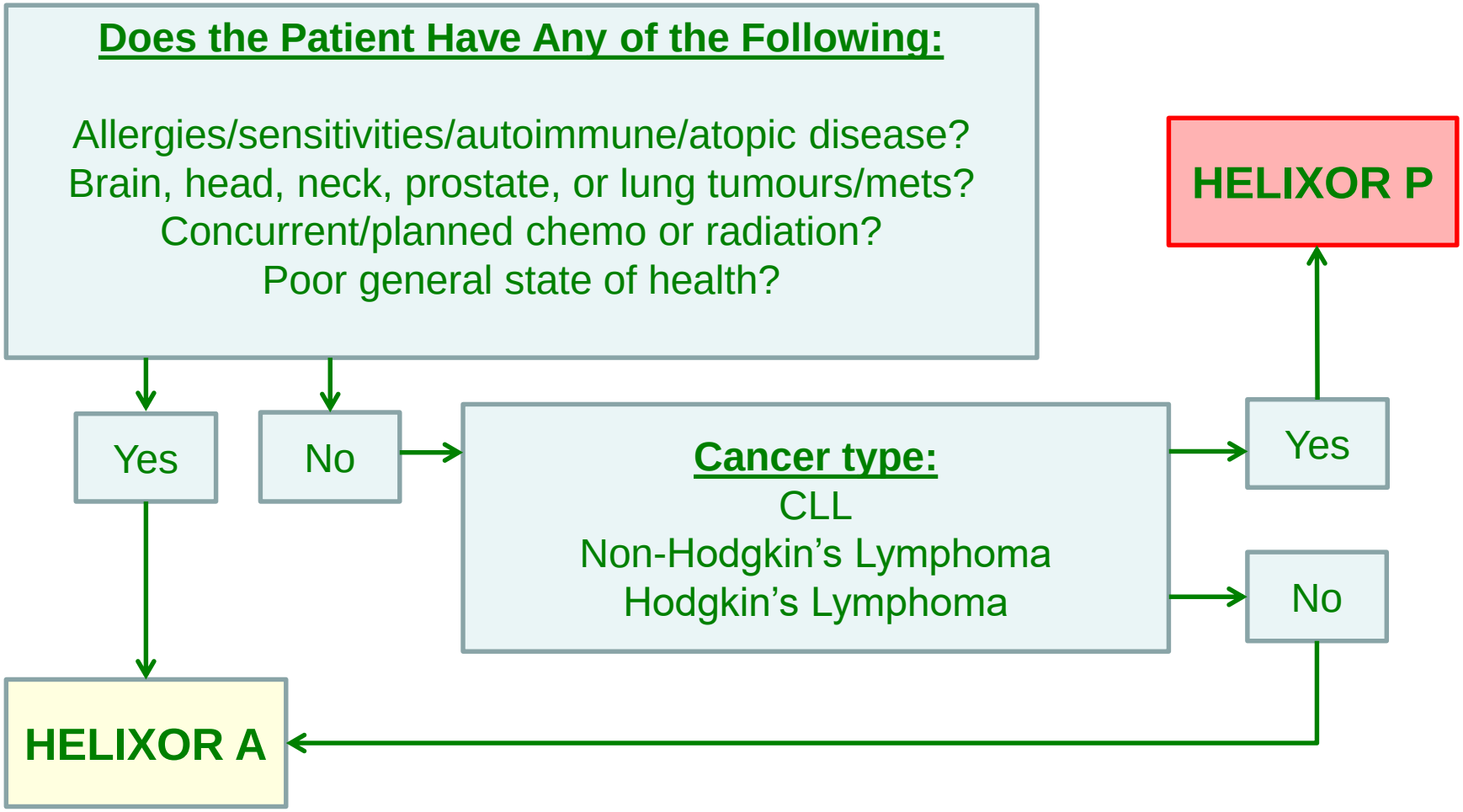
Characteristics:	highest lectin content, most cytotoxic in the majority of tumour cell lines, less tolerable, most effective in stimulating eosinophils and phagocytotic activity of granulocytes
Patient:	• sufficient general condition • strong and younger patients
Tumour:	• malignant melanoma • sarcoma • testicular cancer • malignant lymphoma • chronic lymphocytic leukaemia • slim or premenopausal breast cancer
Special administrations:	• Lyme disease

Choosing the Type of Mistletoe (Solid Tumour)



Does NOT include lymphomas, leukemias, myelomas

Choosing the Type of Mistletoe (Systemic)



Includes lymphomas, leukemias, myelomas

Possible Side Effects of HELIXOR Therapy

Side Effect	Frequency	Measures
Local inflammatory reactions at the injection site > 5cm	Frequent (initial phase)	• transitory interruption of therapy • after complete regression, dose reduction • no antiphlogistics
Fever > 38ºC, flu-like symptoms	Occasional	
Swelling of regional lymph nodes	Rare	
Allergic reaction (generalized itching, nettle-rash, few cases of bronchospasm, angioneurotic edema	Occasional	• stop taking HELIXOR • use anti-allergic treatment
Anaphylactic reaction	Single cases	
Activation of inflammation	Single cases	• elimination of the focus

Immunological Effects of Mistletoe Extracts

- Activation of antigen-presenting cells (monocytes, macrophages, dendritic cells)
- Increase of granulocytes: neutrophils, eosinophils after 1 month
- Increase of phagocytosis activity
- Increase and activation of lymphocytes (CD4+ ↑, CD25+ ↑)
- Increase of FasL on lymphocytes
- Increase of Natural Killer (NK) cells and of NK activity
- Modulation of cytokine release: TNF-α, IL-1, IL-6, IL-2, IL12, IFN-γ, IL-4, IL-5, IL-10, GM-CSF
- Induction of antibodies to mistletoe antigens (esp. anti-ML antibodies)

Berg, P.A., Stein, G.M.: DMW 126, 2001, 339-345 (modified and updated 4/2002)

Cautions for HELIXOR Therapy

Contraindication	**Measures**
Acute inflammatory diseases High fever	Transitory interruption of therapy
Allergic/Atopic/Autoimmune disease or Hyperthyroidism	Start very slowly with Original Packs only
Pregnancy	Only in progressive cancer
Interferon and other cytokine treatment	Cannot be used concurrently
Mixing with other substances in same syringe	Do not do this – risk of precipitates
Known allergy	Do not use

Precautions for Subcutaneous Injection

Never inject in:	In order to avoid:
inflamed skin areas	booster effects
fresh postoperative scars	swelling and inflammation
irridation fields	impaired reabsorption
the breast or the accessory arm after breast surgery	risk of lymphedema or infection

Getting Help

CANADA/US

- rcoedy@helixor.ca / 877-734-1686
- advice@helixor.ca

GERMANY

- advice@helixor.de
- www.helixor.com
- www.mistel-therapie.de