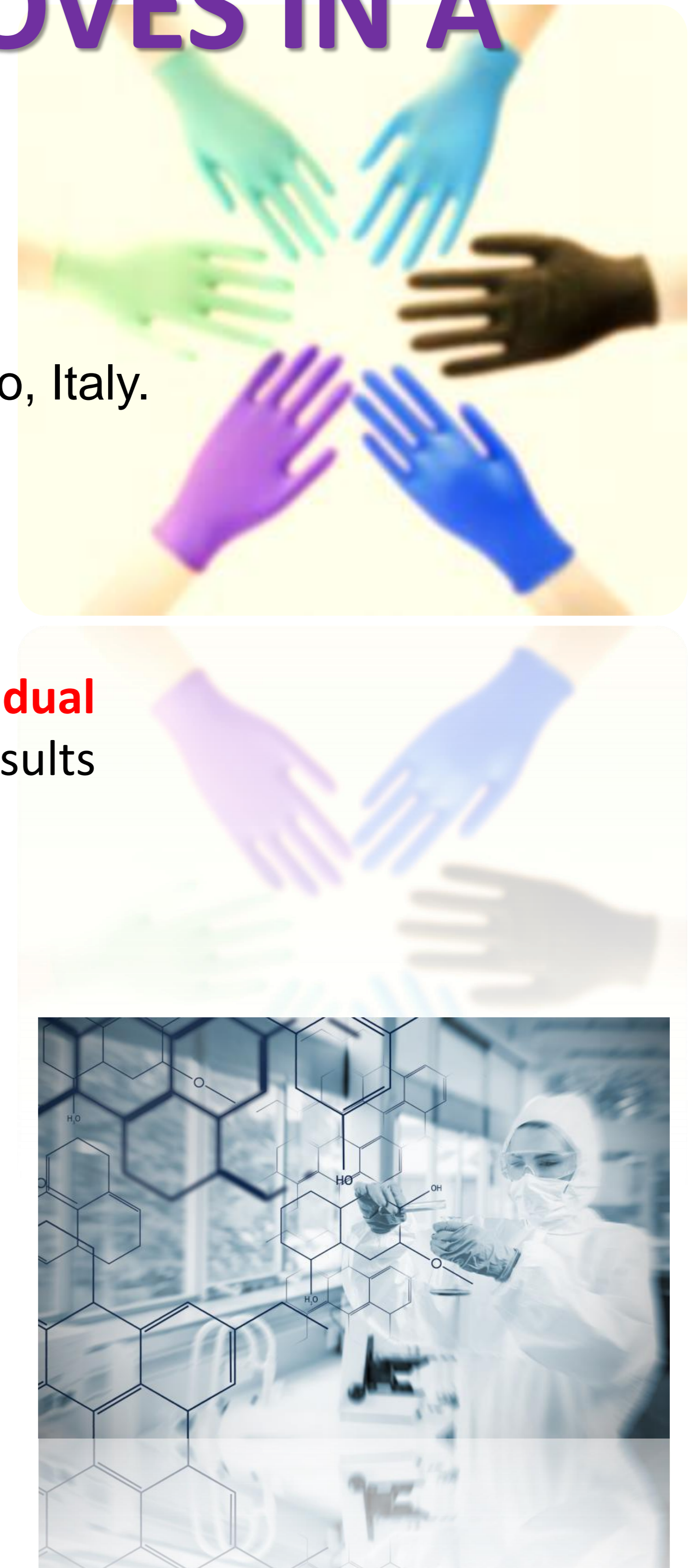


RATIONALISATION SCHEME FOR APPROPRIATE CONSUMPTION OF MEDICAL GLOVES IN A GENERAL HOSPITAL

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Objectives

Regarding the possibility of the **double certification** of medical gloves (MG) as **medical device (MD)** and **individual protection device (IPD)** in the country, and the need of **cost containment**, **optimizing the hospital usage** of MG results fundamental for an **appropriate consumption**.

Guideline-scheme for all the hospital units with the correct usage indications, basing on internal hospital guidelines, Prevention-Protection Service procedures, indications from provider companies compared with revision of the literature evidence.

Materials and Methods

MG were divided basing on the **material type (MT)** and the **usage indication (UI)**. For each MT (**6 typologies**), corresponded **2 types of operation** (on the **patient** and/or on **ambient**), **sterile/non-sterile** type, **disposable/non-disposable** type.

Results

MATERIAL TYPE	NITRILE NON STERILE			WARNINGS
	OPERATION ON THE PATIENT		OPERATION ON AMBIENT	<ul style="list-style-type: none"> high manipulative stress Use always with elevated risk of blood and/or biologic liquid contamination and damaging chemical agents contact Exploratory procedures: length and width of the hose to be worn over the wrist of disposable scrubs
	DIAGNOSTIC ASSISTENTIAL PROCEDURE	CHEMOTHERAPY ADMINISTRATION	CHEMICAL MATERIAL MANIPULATION	
	High and prolonged risk of exposition to biologic material and in emergency situation: traumatized/bleeding patients, obstetric-gynecologic procedures		Laboratories, anatomic pathology, protection against biological and chemical agents	
COMMERCIAL NAME	C*****E	N*****M	N*****K	
MATERIAL TYPE	VINYL NON STERILE ELASTICIZED			WARNINGS
	OPERATION ON THE PATIENT		OPERATION ON AMBIENT	<ul style="list-style-type: none"> moderate manipulative stress, short duration procedures Avoid procedures with high and prolonged risk of biologic fluid exposition
	ROUTINE ASSISTANCE → no risk of exposition to biologic material : wound care, diagnostic procedures, biological samples collection/management, therapy management, ostomy and deans management, patient hygiene		CLEANING AND REORGANIZATION MATERIAL: Handling dirty linen, collecting trays and cutlery used, pans removal	
COMMERCIAL NAME	V*****S			
MATERIAL TYPE	LATEX STERILE LUBRICATED			WARNINGS
	OPERATION ON THE PATIENT		OPERATION ON AMBIENT	<ul style="list-style-type: none"> HIGH-RISK AMBIENT (Surgical room, intensive care) Change single MG or OVER-GLOVE in case of breaking Presence of Latex Chemotherapy preparation: length and width of the hose to be worn over the wrist of disposable scrubs
	INVASIVE SURGICAL OPERATION, vascular access management (CVC)	INVASIVE SURGICAL OPERATION IN POTENTIALLY INFECTED PATIENTS	CHEMOTHERAPY PREPARATION	
	SINGLE MG:	DOUBLE MG :	ANTI-X Hand protection of the operators exposed during use of x-ray machines	
COMMERCIAL NAME	S*****S	P*****E GREEN UNDER-GLOVES (internally coated polymer latex free) P*****D OVER-GLOVES (internally coated polymer latex free)	P*****N Resterilizable	
MATERIAL TYPE	SYNTHETIC STERILE (polychloprene)			WARNINGS
	OPERATION ON THE PATIENT		OPERATION ON AMBIENT	<ul style="list-style-type: none"> Only in case of patient and/or operator sensibilization to latex protein
	INVASIVE SURGICAL OPERATION			
COMMERCIAL NAME	N*****2			
MATERIAL TYPE	KEVLAR ANTI-CUT			WARNINGS
	OPERATION ON THE PATIENT		OPERATION ON AMBIENT	<ul style="list-style-type: none"> Use as UNDER-GLOVES for elevated risk of cut and abrasion
			HANDLING SHARP AND BARBED OBJECTS	
			Laboratories, protection against cuts and drillings	
			UNDER-GLOVES Resterilizable	
MATERIAL TYPE	POLYETHYLENE STERILE			WARNINGS
	OPERATION ON THE PATIENT		OPERATION ON AMBIENT	<ul style="list-style-type: none"> May be used as OVER-GLOVES over protective nitrile non sterile
	NON-SURGICAL OPERATION			
	Preoperative and sterile fields preparation, suctioning and catheterizations (over protective gloves unsterile)			
COMMERCIAL NAME	C*****E			

Powder-free.
Disposable except Latex anti-X and Kevlar anti-cut.
Time of changing gloves: generally 20 min but depending on the kind of procedure and risk of breaking; 3 hours for Latex sterile (surgical operation).

Nitrile recommended only in the situation of high manipulative stress

Discussion

Vinyl use could be increased for moderate manipulative stress

Conclusion

Vinyl resulted to have a cost 3 times lower than Nitrile and to have less possibility to develop contact allergy

With the same safety level, adequate biocompatibility and appropriate performance, the MG with the lower cost is preferred and its usage is required only in case of patient and hospital personnel protection.