

抗原

- ◆ 天然抗原
- ◆ 重组抗原
- ◆ BSL-3 实验室
- ◆ 稳定批量供应
- ◆ 适用多种平台

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Cancer Reports

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BRIEF REPORT OPEN ACCESS

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根据芬兰一项关于儿童经恶性肿瘤治疗后疫苗的体液免疫反应情况最新的临床报告(图 1)，主要涉及疫苗的特异性 IgG 抗体滴度变化概况，报告显示，部分儿童经恶性肿瘤治疗后**麻疹、腮腺炎和风疹**抗体滴度会低于参考值(图 2)，其中 28%的 1-6 岁儿童癌症患者治疗后风疹抗体水平不足(图 3)，对于腮腺炎则是 16%(图 4)，麻疹是 8%(图 5)，但是对于 1-16 岁全年龄段的儿童则影响较低，只有 5-6%的儿童癌症患者治疗后麻风腮抗体水平不足，MMR 疫苗的持久性较强。

TABLE 2 | Status of mumps, measles and rubella antibodies according to treatment groups.

	n/N (%)	Low intensity treatment group	High intensity treatment group	p
1-6-year-old children				
Below-reference mumps antibodies	4/25 (16)	2/19 (11)	2/6 (33)	0.23 *
Below-reference measles antibodies	2/ 26 (8)	2/20 (10)	0/ 6	NA
Below-reference rubella antibodies	7/25 (28)	5/19 (26)	2/6 (33)	1.0 *
Time since previous MMR vaccine in years, mean (SD)	26 children	2.30 (1.59)	1.83 (1.72)	0.54 **
Below-reference total IgG by 4 months post-treatment	2/28 (7)	0/21	2/7 (29)	0.06 *
Below-reference CD19 cell count by 4months post-treatment	0/28	0/21	0/7	NA
Whole cohort				
Below-reference mumps antibodies	1/18 (6)	0/9	1/9 (11)	NA
Below-reference measles antibodies	1/19 (5)	0/ 10	1/9 (11)	NA
Below-reference rubella antibodies	1/18 (6)	1/9 (11)	0/9	NA
Time since previous MMR vaccine in years, mean (SD)	19 children	5.90 (3.54)	4.0 (3.35)	0.25 **
Below-reference total IgG by 4 months post-treatment	4/19 (21)	3/10 (30)	1/9 (11)	0.58*
Below-reference CD19 cell count by 4months post-treatment	2/20 (10)	2/10 (20)	0/10	NA

Note: Antibody status was assessed at 3-7 months post-treatment. Below-reference CD19, CD19 count below 90 E6/l by 4 months post-treatment. Rows 1-6: 1-6years old children who had received at least 1 MMR vaccine. Rows 7-12: Children who had received 2 MMR vaccines, no age limit. NA, not applicable. Low and high intensity treatment groups as defined earlier [16].
*Fisher's exact test.
**t-Test.

图 2. 癌症儿童治疗后麻风腮疫苗的效价变化概况(来源文献 1)

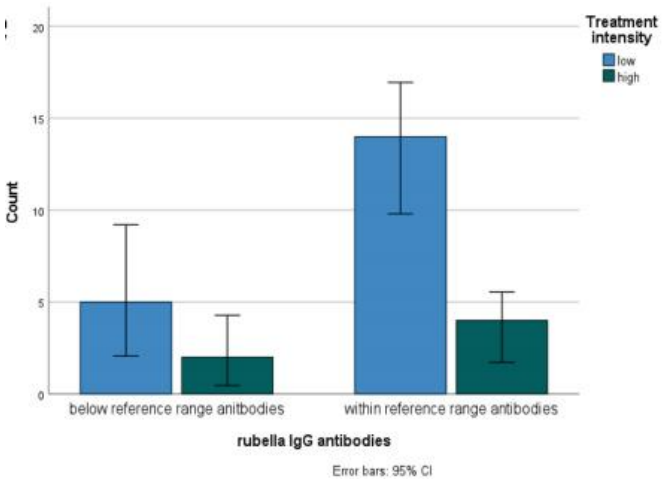


图 3. 1-6 岁癌症儿童治疗后风疹抗体的效价变化概况(来源文献 1)

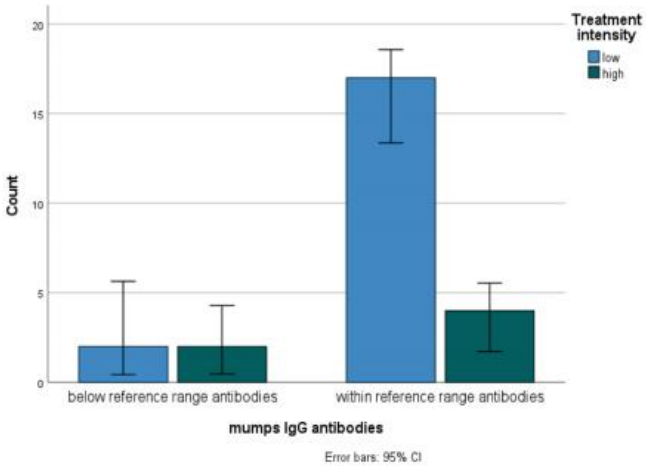


图 4. 1-6 岁癌症儿童治疗后腮腺炎抗体的效价变化概况(来源文献 1)

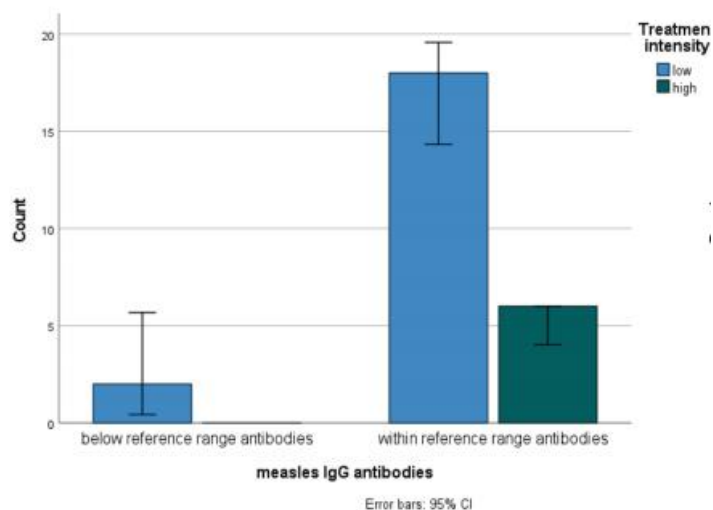


图 5. 1-6 岁癌症儿童治疗后麻疹抗体的效价变化概况(来源文献 1)

据其他相关研究报道，儿童癌症幸存者在成年后仍会面临高于正常水平的感染相关死亡率，因此在这一脆弱人群中实施再接种方案至关重要，在上篇文章中数据显示最高 86%的儿童癌症患者需要在治疗后补种百白破加强疫苗，不过相比百白破疫苗，MMR 疫苗的持久性更强，但是根据血清学和风险概况制定个性化的 MMR 疫苗再接种计划也是很有必要。

数据来源：Humoral Immunity to Measles, Mumps, Rubella, Diphtheria, Tetanus and Pertussis After Cancer Treatment in Children [J]. Cancer reports, 2025, 8(5): e70155.

 德国维润赛润百白破原料清单

病原体	产品名称	类别	应用	单位	货号
白喉杆菌	Diphtheria Toxoid 白喉抗原	天然抗原	免疫测定	mg	BA130VS
百日咳杆菌 (BP)	Bordetella pertussis Filamentous Hemagglutinin (FHA) 百日咳杆菌丝状血凝素抗原	天然抗原	免疫测定	mg	BA120VS3
	Bordetella pertussis Toxin 百日咳毒素抗原	天然抗原	免疫测定	mg	BA120VS4
	Bordetella pertussis whole-cell Antigen 百日咳全细胞抗原	天然抗原	免疫测定	mg	BA120VS8
破伤风杆菌	Tetanus Toxoid 破伤风抗原	天然蛋白	免疫测定	mg	BA108VS