

Clinical Drug Investigation

The impact of Covid-19 vaccination on the Italian healthcare system: a scenario analysis

Running header: Covid-19 vaccination on the Italian healthcare system

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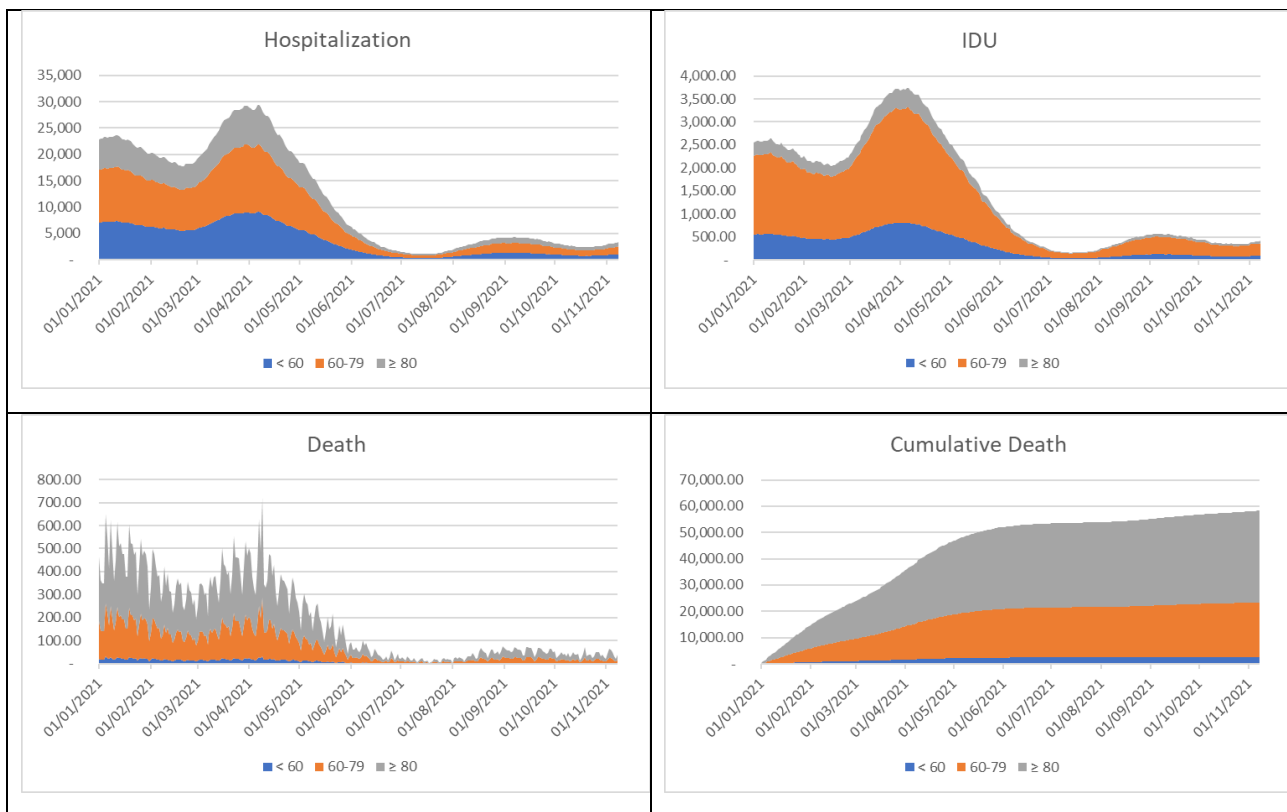
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Supplementary material

Figure 1 - Age distribution of Covid-19-related event – Italy 1st January 2020-31st December 2021



Data from Italian National Institute of Statistics (ISTAT) and the Italian National Institute of Health (ISS) websites (<https://www.epicentro.iss.it/coronavirus/sars-cov-2-sorveglianza-dati>).

Age distribution for hospitalisations and IDU admissions were estimated considering a sample of 996 Covid-19 hospitalisations recorded in Policlinico Tor Vergata Hospital between 2nd March 2020 and 27th December 2020 (Table 1).

Table 1 - Distribution of Covid-19-related events by age class in Italy

Age Class (Years)	Hospitalisations ¹		ICU Admissions		Deaths ²	
	N	%	N	%	N	%
< 60	308	31%	49	22%	1,907	11%
60-79	437	44%	152	67%	14,834	51%
80 +	251	25%	26	11%	24,989	38%
Total	996	100%	227	100%	41,730	100%

¹ Derived from Policlinico Tor Vergata Hospital

² Derived from recorded death by age – Italian Ministry of Health monitoring Data updated 11/11/2020

Table 2 - Average cost per hospitalized patients - estimated considering a sample of 996 Covid-19 hospitalisations recorded in Policlinico Tor Vergata Hospital between 2nd March 2020 and 27th December 2020

Departement	Age (Years)	Death	N	Average days in hospital	Average cost	Average Daily cost
Hospitalisation without ICU	<60	No	253	11.9	4,604 €	552 €
		Yes	6	24.7	7,411 €	320 €
		Total	259	12.2	4,669 €	547 €
	60-79	No	237	16.8	5,517 €	480 €
		Yes	37	18.7	8,412 €	697 €
		Total	274	17.0	5,908 €	508 €
	80+	No	127	21.0	5,655 €	407 €
		Yes	109	14.2	5,037 €	699 €
		Total	236	17.9	5,370 €	540 €
	Total	No	617	15.6	5,171 €	494 €
		Yes	152	15.7	5,952 €	683 €
		Total	769	15.6	5,326 €	531 €
Hospitalisation with ICU	<60	No	17	33.0	10,577 €	420 €
		Yes	17	17.1	22,100 €	1,663 €
		Total	34	25.1	16,338 €	1,042 €
	60-79	No	20	39.4	10,633 €	480 €
		Yes	76	15.4	14,193 €	1,171 €
		Total	96	20.4	13,451 €	1,027 €
	80+	No	3	26.0	7,046 €	288 €
		Yes	13	19.2	10,967 €	973 €
		Total	16	20.5	10,232 €	845 €
	Total	No	40	35.7	10,340 €	440 €
		Yes	106	16.1	15,065 €	1,226 €
		Total	146	21.5	13,771 €	1,010 €
Only ICU	<60	No	1	0.0	661 €	.
		Yes	14	9.9	17,916 €	1,853 €
		Total	15	9.2	16,766 €	1,853 €
	60-79	No	0			
		Yes	49	9.4	17,646 €	2,294 €
		Total	49	9.4	17,646 €	2,294 €
	80+	No	0			
		Yes	17	8.3	13,875 €	1,788 €
		Total	17	8.3	13,875 €	1,788 €
	Total	No	1	0.0	661 €	.
		Yes	80	9.3	16,892 €	2,109 €
		Total	81	9.1	16,691 €	2,109 €