I BEST OF THE WEEK (24 – 30 gen 2022)

ARTICOLO	ABSTRACT	CONTENUTO E COMMENTO
Møller IJB et al. Int J Infect Dis. Diagnostic performance, user acceptability, and safety of unsupervised SARS-CoV-2 rapid antigen detecting tests performed at home. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8759098/pdf/main.pdf	Abstract Background: One strategy for reducing spread of COVID-19 is to contain the infection with broad screening, isolate infected individuals, and trace contacts. This strategy requires widely available, reliable SARS-CoV-2 testing. To increase testing, rapid antigen detection tests (RADTs) were developed for self-sampling, self-testing, and self-interpretation. This study examined diagnostic performance, user acceptability, and safety of nasal self-RADTs, compared to PCR testing. Methods: Self-RADT kits were distributed at a public COVID-19 test center in Aarhus, Denmark or delivered to participants. Participants reported test results and test preferences. During enrollment, participants reported occurrence and duration of symptoms consistent with COVID-19. Sensitivity and specificity of self-RADT, relative to oropharyngeal PCR testing, were calculated. Results: Among 827 participants, 102 showed positive PCR test results. Sensitivities of the self-RADTs were 65.7% (95%	In questo studio danese su 827 partecipanti viene valutata la capacità diagnostica del tampone antigenico rapido effettuato a domicilio rispetto al tampone molecolare, standard diagnostico di riferimento. Ne emerge una discreta sensibilità (62-65%) e un'elevatissima specificità (100%) ; inoltre, la maggior parte dei pazienti sembra preferire il test antigenico a domicilio rispetto al test molecolare effettuato da personale specializzato. Identificare un valido test rapido, poco costoso e di facile esecuzione da poter effettuare a livello capillare rappresenta una sfida per la « test-trace-isolate strategy » (TETRIS). Il test rapido analizzato in questo studio, nonostante sia di facilissima esecuzione, interpretazione e abbia un costo contenuto, è gravato da una percentuale di falsi negativi troppo elevata.

	CI: 49.2-79.2; DNA Diagnostic) and 62.1% (95% CI: 50.1-72.9; Hangzhou), and specificities were 100% (95% CI: 99.0-100; DNA Diagnostic) and 100% (95% CI: 98.9-100; Hangzhou). The sensitivities of both self-RADTs appeared higher in symptomatic participants than in asymptomatic participants. Two out of every three participants preferred self-RADT over PCR test. Conclusion: Self-performed RADTs were reliable, user acceptable, and safe among laypeople as supplement to professionally collected oropharyngeal PCR testing.	
Wolter N et al Early assessment of the clinical severity of the SARS-CoV-2 omicron variant in South Africa: a data linkage study The Lancet https://www.thelancet.com/action/showPdf?pii=S0140-	Background The SARS-CoV-2 omicron variant of concern was identified in South Africa in November, 2021, and was associated with an increase in COVID-19 cases. We aimed to assess the clinical severity of infections with the omicron variant using S gene target failure (SGTF) on the Thermo Fisher Scientific TaqPath COVID-19 PCR test as a proxy. Methods We did data linkages for national, South African COVID-19 case data, SARS-CoV-2 laboratory test data, SARS-CoV-2 genome data, and COVID-19 hospital admissions data. For individuals diagnosed with COVID-19 via TaqPath PCR tests, infections were designated as either SGTF or non-SGTF. The delta variant was identified by genome sequencing. Using multivariable logistic regression models, we assessed disease severity and hospitalisations by comparing individuals with SGTF versus non-SGTF infections diagnosed between Oct 1 and Nov 30, 2021, and we further	Studio retrospettivo nazionale di data linkages condotto in Sud-Africa con l'obiettivo di valutare la gravità clinica delle infezioni da variante omicron a confronto con infezioni da variante delta, utilizzando la perdita del gene S al test PCR per COVID-19 (SGTF) come proxy di variante omicron. I risultati dell'analisi suggeriscono che pazienti con SGTF hanno un ridotto rischio di ospedalizzazione e di malattia severa, probabilmente come risultato di una precedente immunità.

6736%2822%2900017-4	assessed disease severity by comparing SGTF-infected individuals diagnosed between Oct 1 and Nov 30, 2021, with delta variant-infected individuals diagnosed between April 1 and Nov 9, 2021. Findings From Oct 1 (week 39), 2021, to Dec 6 (week 49), 2021, 161 328 cases of COVID-19 were reported in South Africa. 38 282 people were diagnosed via TaqPath PCR tests and 29 721 SGTF infections and 1412 non-SGTF infections were identified. The proportion of SGTF infections increased from two (3·2%) of 63 in week 39 to 21 978 (97·9%) of 22 455 in week 48. After controlling for factors associated with hospitalisation, individuals with SGTF infections had significantly lower odds of admission than did those with non-SGTF infections (256 [2·4%] of 10 547 *vs* 121 [12·8%] of 948; adjusted odds ratio [aOR] 0·2, 95% CI 0·1–0·3). After controlling for factors associated with disease severity, the odds of severe disease were similar between hospitalised individuals with SGTF versus non-SGTF infections (42 [21%] of 204 *vs*45 [40%] of 113; aOR 0·7, 95% CI 0·3–1·4). Compared with individuals with earlier delta variant infections, SGTF-infected individuals had a significantly lower odds of severe disease (496 [62·5%] of 793 *vs* 57 [23·4%] of 244; aOR 0·3, 95% CI 0·2–0·5), after controlling for factors associated with disease severity. Interpretation Our early analyses suggest a significantly reduced odds of hospitalisation among individuals with SGTF versus non-SGTF infections diagnosed during the same time	

	period. SGTF-infected individuals had a significantly reduced odds of severe disease compared with individuals infected earlier with the delta variant. Some of this reduced severity is probably a result of previous immunity.	
Shoji K et al Clinical characteristics and outcomes of COVID-19 in pregnant women: a propensity score matched analysis of the data from the COVID-19 Registry Japan Clinical Infectious Diseases https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciac028/6509063	Background Several studies have investigated whether pregnancy is a risk factor for developing severe COVID-19; however, the results remain controversial. In addition, the information regarding risk factors for developing severe COVID-19 in pregnant women is limited. Methods A retrospective cohort study analyzing the data from the nationwide COVID-19 registry in Japan was conducted. Propensity score matched analysis was performed to compare COVID-19 severity between pregnant and nonpregnant women. Multivariate analysis was also conducted to evaluate risk factors for developing moderate-to-severe COVID-19 in pregnant women. Results During the study period, 254 pregnant and 3752 nonpregnant women of reproductive age were identified. After propensity score matching, 187 pregnant women and 935 nonpregnant women were selected. A composite outcome of moderate-to-severe COVID-19 was more	Studio retrospettivo di coorte condotto utilizzando i dati del registro COVID-19 nazionale giapponese in cui 187 donne in gravidanza sono state matchate per gravità con 935 donne non in gravidanza per valutare i fattori di rischio di sviluppare malattia moderato-severa nelle donne in gravidanza. I risultati hanno dimostrato che la gravidanza in sè rappresenta un fattore di rischio per forme moderato-severe e che nelle donne in gravidanza la presenza di comorbidità e le fasi avanzate di gravidanza (secondo e terzo trimestre) rappresentano fattori di rischio per forme moderato-severe di COVID-19.

	frequently observed in pregnant women than that of nonpregnant women (n=18, 9.6% vs. n=46, 4.9%; *P*=0.0155). In multivariate analysis, the presence of underlying diseases and being in the second-to-third trimester of pregnancy were recognized as risk factors for moderate-to-severe COVID-19 in pregnant women (odds ratio [95% confidence interval]: 5.295 [1.21-23.069] and 3.871 [1.201-12.477], respectively). Conclusions Pregnancy could be a risk factor for moderate-to-severe COVID-19 for women in Japan. In addition to the presence of comorbidities, advanced pregnancy stages may contribute to greater risks for developing moderate-to-severe COVID-19 in pregnant women.	