



POLITECNICO DI TORINO
Repository ISTITUZIONALE

Drugs used in Italy against Covid-19

Original

Drugs used in Italy against Covid-19 / SPARAVIGNA, Amelia Carolina. - ELETTRONICO. - (2020).

Availability:

This version is available at: 11583/2823007 since: 2020-05-12T15:53:42Z

Publisher:

Zenodo

Published

DOI:10.5281/zenodo.3818234

Terms of use:

openAccess

This article is made available under terms and conditions as specified in the corresponding bibliographic description in the repository

Publisher copyright

(Article begins on next page)

Drugs used in Italy against Covid-19

Amelia Carolina Sparavigna
Politecnico di Torino

Torino, May 9, 2020

Here a review concerning drugs used in Italy against Covid-19 and its effects on humans. The main source of information on trials is the Italian Government. In particular, the following links are available:

http://www.salute.gov.it/portale/news/p3_2_1_1_1.jsp?lingua=italiano&menu=notizie&p=dalministero&id=4683 on 5 May 2020, and
http://www.salute.gov.it/portale/news/p3_2_1_1_1.jsp?lingua=italiano&menu=notizie&p=dalministero&id=4646 on date 2 May, and
http://www.salute.gov.it/portale/news/p3_2_1_1_1.jsp?lingua=italiano&menu=notizie&p=dalministero&id=4344.

From these links, the names of trials and drugs involved have been obtained.

Some information and references about drugs have been collected from other web sites (related links are given). References to scholar papers and news are also given.

Tocilizumab, Sarilumab, Siltuximab, Canakinumab, Baricitinib, Methylprednisolone, Selinexor, Hydroxychloroquine, Enoxaparin sodium, Solnatide, Colchicine, Emapalumab, Anakinra, Remdesivir, Camostat, Nafamostat, Ivermectin.

01/05/2020 - Trial **AMMURAVID** - Tocilizumab, Sarilumab, Siltuximab, Canakinumab, Baricitinib, Metilprednisolone.

"**Tocilizumab**, also known as **atlizumab**, is an immunosuppressive drug, mainly for the treatment of rheumatoid arthritis It is a humanized monoclonal antibody against the interleukin-6 receptor (IL-6R). **Interleukin 6 (IL-6)** is a cytokine that plays an important role in immune response and is implicated in the pathogenesis of many diseases, such as autoimmune diseases, multiple myeloma and prostate cancer". <https://en.wikipedia.org/wiki/Tocilizumab>

"Tocilizumab" <https://www.drugs.com/monograph/tocilizumab.html>

"Atlizumab: anti-IL-6 receptor antibody-Chugai, anti-interleukin-6 receptor antibody-Chugai, MRA-Chugai". *BioDrugs*. 2003;17(5):369-72. <https://www.ncbi.nlm.nih.gov/pubmed/14498766>

"Actemra/RoActemra (tocilizumab)" Roche <https://www.roche.com/products/product-details.htm?productId=42bf9d08-8573-491a-944a-fdbc030ec44b>

"Tocilizumab" by Adith Venkiteshwaran. *MAbs*. 2009 Sep-Oct; 1(5): 432–438. doi: 10.4161/mabs.1.5.9497. PMID: 20065633

"**Sarilumab** (trade name Kevzara) is a human monoclonal antibody against the **interleukin-6** receptor. ... US FDA approval on 22 May 2017 and European Medicines Agency approval on 23 June 2017." <https://en.wikipedia.org/wiki/Sarilumab>.

"Sarilumab enters clinical trial for COVID-19, spotlighting 'key role' for IL-6". March 19, 2020. <http://archive.is/PFIdw> "Sarilumab (Kevzara) — jointly developed Regeneron and Sanofi — is a fully human, monoclonal antibody that inhibits the interleukin-6 (IL-6) pathway by binding and

blocking the IL-6 receptor. According to the pharmaceutical companies' joint statement, IL-6 may play a role in driving the overactive inflammatory response in the lungs of patients who are severely or critically ill with COVID-19."

"**Siltuximab** (INN, trade name Sylvant; also known as CNTO 328, **anti-IL-6** chimeric monoclonal antibody or **cCLB8**) is a chimeric (made from human and mouse proteins) monoclonal antibody. It **binds to interleukin-6**. Siltuximab has been investigated for the treatment of neoplastic diseases."

<https://en.wikipedia.org/wiki/Siltuximab>

"Il Siltuximab è un anticorpo monoclonale che agisce sull'**IL-6**, è studiato come antitumorale. E' commercializzato come Sylvant; noto anche come CNTO 328. E' studiato per il trattamento di tumori metastatici come il carcinoma a cellule renali, tumore alla prostata, e per la malattia di Castleman, tra altri tipi di tumore." <https://it.wikipedia.org/wiki/Siltuximab>

"Sylvant è un medicinale contenente il principio attivo siltuximab." <https://www.my-personaltrainer.it/farmaci/sylvant.html>

"**Canakinumab** (INN, trade name Ilaris, previously ACZ885) is a human monoclonal antibody targeted at **interleukin-1 beta**. Canakinumab was approved for the treatment of cryopyrin-associated periodic syndromes (CAPS) by the U.S. Food and Drug Administration (FDA) in June 2009 and by the European Medicines Agency in October 2009. CAPS is a spectrum of several autoinflammatory syndromes. ... Canakinumab was being developed by Novartis for the treatment of rheumatoid arthritis, but this trial was completed in October 2009. Canakinumab is also in phase I clinical trials as a possible treatment for chronic obstructive pulmonary disease, gout, and coronary artery disease." <https://en.wikipedia.org/wiki/Canakinumab>

"**Baricitinib**, sold under the brand name Olumiant among others, is a drug for the treatment of **rheumatoid arthritis** (RA) in adults whose disease was not well controlled using RA medications called tumor necrosis factor (TNF) antagonists. It acts as an inhibitor of janus kinase (JAK), blocking the subtypes JAK1 and JAK2." <https://en.wikipedia.org/wiki/Baricitinib>

"**Methylprednisolone**, sold under the brand name Depo-Medrol among others, is a corticosteroid medication used **to suppress the immune system and decrease inflammation**. Conditions in which it is used include .. ". Serious side effects are reported, and common side effects with long term use. <https://en.wikipedia.org/wiki/Methylprednisolone>

28/04/2020 - Trial **XPORT-CoV-1001** - Selinexor

"**Selinexor** (INN, trade name Xpovio; development code KPT-330) is a **selective inhibitor of nuclear export** used as an anti-cancer drug. It works by binding to exportin 1 and thus **blocking the transport of several proteins** involved in cancer-cell growth from the cell nucleus to the cytoplasm, which ultimately arrests the cell cycle and leads to apoptosis. It is the first drug with this mechanism of action. As of May 2020, clinical trial of its use for COVID-19 is done on hospitals like Lehigh Valley Hospital." <https://en.wikipedia.org/wiki/Selinexor>

28/04/2020 - Trial **ESCAPE** - Sarilumab (for the drug, see AMMURAVID)

27/04/2020 - Trial **PROTECT** - Idrossiclorochina

"**Hydroxychloroquine** (HCQ), sold under the brand name Plaquenil among others, is a medication used to **prevent and treat malaria** in areas where malaria remains sensitive to chloroquine. Other uses include treatment of rheumatoid arthritis, lupus, and porphyria cutanea tarda. It is also being studied as a treatment for coronavirus disease 2019 (COVID-19). Common side effects include Severe side effects may include Hydroxychloroquine is in the **antimalarial** and 4-aminoquinoline families of medication." <https://en.wikipedia.org/wiki/Hydroxychloroquine>

22/04/2020 - Trial **X-COVID** - Enoxaparina

"L'**enoxaparina** (chiamata anche in fase di sperimentazione PK 10169), utilizzata come sale di sodio, E' un frammento di eparina a basso peso molecolare. E' preparata per depolimerizzazione dell'estere benzilico dell'eparina estratta dalla mucosa porcina." Formula: (C₂₆H₄₀N₂O₃S₅)n
<https://it.wikipedia.org/wiki/Enoxaparina>

"**Enoxaparin sodium** is an anticoagulant medication (blood thinner). Trade names Lovenox, Clexane, Xaparin, others. It is used to treat and prevent deep vein thrombosis (DVT) and pulmonary embolism (PE) including during pregnancy and following certain types of surgery. It is also used in those with acute coronary syndrome (ACS) and heart attacks. Common side effects include bleeding, fever, and swelling of the legs." Formula (C₂₆H₄₀N₂O₃S₅)n
https://en.wikipedia.org/wiki/Enoxaparin_sodium

"Inhixa - Enoxaparina sodica" <https://www.my-personaltrainer.it/farmaci/inhixa.html>

24/04/2020 - Trial **COVID-SARI** - Sarilumab (for the drug see AMMURAVID)

30/03/2020 - Trial **COP-COV** - Idrossiclorochina (for the drug see PROTECT)

Programma uso compassionevole con Solnatide. **Solnatide approved for compassionate use.**

<https://pubchem.ncbi.nlm.nih.gov/compound/91864495#section=EU-Clinical-Trials-Register>
"Efficacy of solnatide to treat pulmonary permeability oedema in SARS-Cov-2 positive patients with moderate-to-severe ARDS"

"Solnatide - APEPTICO" <https://adisinsight.springer.com/drugs/800036422>

Most Recent Events given by Adis Insight:

28 Apr 2020: Italian Medicines Agency and the Ethics Committee of the National Institute for Infectious Diseases (Lazzaro Spallanzani-Rome) approves solnatide for compassionate use for COVID-19 infections in Italy; 28 Apr 2020 APEPTICO plans a clinical trial in pulmonary oedema and acute respiratory distress syndrome associated with COVID-19 infections in Italy; 11 Apr 2020 Phase-II clinical trials in Pulmonary oedema (in SARS-Cov-2 positive patients with ARDS) in Austria (Inhalation, Powder) (EudraCT2020-001244-26)

22/04/2020 - Trial **BARCIVID** - Baricitinib (for the drug see AMMURAVID)

22/04/2020 - Trial **INHIXACOVID** - Enoxaparina (for the drug see X-COVID)

20/04/2020 - Trial **ColCOVID** - Colchicina

"Colchicine is a medication used to treat gout and Behçet's disease. In gout, it is less preferred to NSAIDs or steroids. Other uses include the prevention of pericarditis and familial Mediterranean fever. Common side effects include gastrointestinal upset, particularly at high doses. Severe side effects may include low blood cells and rhabdomyolysis. Colchicine works by decreasing inflammation via multiple mechanisms. " <https://en.wikipedia.org/wiki/Colchicine>

"Colchicine, in the form of the autumn crocus, has been used as early as 1500 BC to treat joint swelling." <https://en.wikipedia.org/wiki/Colchicine>

"Colchicum autumnale, commonly known as autumn crocus, meadow saffron or naked ladies, is a toxic autumn-blooming flowering plant that resembles the true crocuses, but is a member of the plant family Colchicaceae, unlike the true crocuses which belong to the family Iridaceae. Despite the vernacular name of "meadow saffron", this plant is not the source of saffron, which is obtained from the saffron crocus, *Crocus sativus* - and that plant too is sometimes called "autumn crocus"." https://en.wikipedia.org/wiki/Colchicum_autumnale

11/04/2020 - Trial **COLVID-19** - Studio randomizzato sull'utilizzo di colchicina (for the drug see ColCOVID)

09/04/2020 - Trial **SOLIDARITY** - Studio randomizzato OMS

08/04/2020 - Trial **Hydro-Stop** - Somministrazione precoce di idrossiclorochina (for the drug see PROTECT)

30/03/2020 - Trial **Tocilizumab 2020-001154-22** (tocilizumab) (for the drug see AMMURAVID)

27/03/2020 - Trial **RCT-TCZ-COVID-19** (tocilizumab) (for the drug see AMMURAVID)

26/03/2020 - Trial **Sarilumab COVID-19** (sarilumab) (for the drug see AMMURAVID)

25/03/2020 - Trial **Sobi.IMMUNO-101** (emapalumab and anakinra)

"La molecola **Emapalumab**, commercializzato a nome Gamifant, è un anti-interferone gamma (IFN γ) anticorpo usato per il trattamento Sindrome emofagocitica (HLH)."
<https://it.wikipedia.org/wiki/Emapalumab>

"**Anakinra** (brand name Kineret) is a biopharmaceutical drug used to treat rheumatoid arthritis. It is a recombinant and slightly modified version of the human **interleukin 1 receptor antagonist protein**". <https://en.wikipedia.org/wiki/Anakinra>

22/03/2020 - Trial **TOCIVID-19** (tocilizumab) - Istituto Nazionale Tumori, IRCSS, Fondazione G. Pascale di Napoli (for the drug see AMMURAVID)

11/03/2020 - Trial **GS-US-540-5773** (remdesivir)

11/03/2020 - Trial **GS-US-540-5774** (remdesivir)

"Remdesivir is a broad-spectrum antiviral medicatio. As of 2020, remdesivir is being tested as a specific treatment for COVID-19, and has been issued an Emergency Use Authorization (EUA) in the U.S. for those hospitalized with severe disease. Side effects may include liver inflammation and an infusion related reaction with nausea, low blood pressure, and sweating. It is a pro-drug that is converted in the body into GS-441524, a ribonucleotide analog. Earlier studies found antiviral activity against several RNA viruses including SARS coronavirus and Middle East respiratory syndrome-related coronavirus, but it is not approved for any indication. Remdesivir was originally developed to treat Ebola virus disease and Marburg virus disease but was ineffective for these viral infections." <https://en.wikipedia.org/wiki/Remdesivir>

**The first trials used remdesivir and tocilizumab. Let us search for publications.
Search made on 9 May 2020.**

Google Scholar search "tocilizumab covid-19 italy" - first 10 results

Profiling COVID-19 pneumonia progressing into the cytokine storm syndrome: results from a single Italian Centre study on tocilizumab versus standard of care. - L Quartuccio, A Sonaglia, D McGonagle, M Fabris... - medRxiv, 2020 - medrxiv.org Background Approximately 5% of patients with coronavirus disease 2019 (COVID-19) develop a life-threatening pneumonia that often occurs in the setting of increased inflammation or "cytokine storm". Anti-cytokine treatments are being evaluated but optimal ...

Negative impact of hyperglycemia on Tocilizumab therapy in COVID-19 patients - R Marfella, P Paolisso, C Sardu, L Bergamaschi... - medRxiv, 2020 - medrxiv.org ... there are no data about the effects of tocilizumab therapy on outcomes of hyperglycemic Covid-19 patients with pneumonia ... 475 Covid-19 positive patients admitted to Infection Disease Departments ... Hospital, Italy) since March 1st, 2020 were retrospectively studied ...

Off-label use of tocilizumab in patients with SARS-CoV-2 infection, ... COVID-19 group (Members are listed in ... - Journal of Medical ..., 2020 - Wiley Online Library ... Sacro Cuore, 00168 Rome, Italy. Enrica Tamburrini, Fondazione Policlinico Universitario A. Gemelli IRCCS,

Roma, UOC ... References 1. Pan L, Yi L, Lin Q et al. Tocilizumab treatment in COVID-19: a single center experience. J Med Virol. 2020 ...

[PDF] **Favorable changes of CT findings in a patient with COVID-19 pneumonia after treatment with tocilizumab** - M Cellina, M Orsi, F Bombaci, M Sala... - Diagn Interv ..., 2020 - researchgate.net ... Milano, Italy Keywords: Pneumonia; viral; Coronavirus; COVID-19; Severe acute respiratory syndrome coronavirus 2; Computed tomography ... 2. Xu X, Han M, Li T, Sun W, Wang D, Fu B et al. Effective treatment of severe COVID-19 patients with tocilizumab ...

[PDF] **Interim Guidance for the use of Tocilizumab in the Management of Patients who have Severe COVID-19 with Suspected Hyperinflammation** [v3. 0] C Bergin, P Browne, P Murray, M O'Dwyer, N Conlon... - 2020 - lenus.ie ... of staff to co-ordinate tocilizumab prescription and registry data. 1 Note: The terms CRS and hyperinflammation are used interchangeably in this document. 2 These criteria are drawn from The SIMIT, Handbook for the care of people with COVID-19 disease (Italy) <http://www.simit> ...

[HTML] **Why tocilizumab could be an effective treatment for severe COVID-19?** B Fu, X Xu, H Wei - Journal of translational ..., 2020 - ... -medicine.biomedcentral.com ... In Italy, to date there are ... A global outbreak of the SARS-CoV-2 caused Corona ... China's plan of Tocilizumab treatment has shown its remarkable effectiveness and safety in clinical practice over the past 2 months, hoping it ... COVID-19 ...

[PDF] **Pilot prospective open, single-arm multicentre study on off-label use of tocilizumab in severe patients with COVID-19** - S Sciascia, F Aprà, A Baffa, S Baldovino... - Clinical and ..., 2020 - clinexprheumatol.org ... di Sangue 3, 10154 Torino, Italy. E-mail: dario.roccatello@unito.it Received on April 26, 2020; accepted in revised form on May 1, 2020. © Copyright CLINICAL AND EXPERIMENTAL RHEUMATOLOGY 2020. Key words: COVID-19, coronavirus, tocilizumab, pneumonia ...

[HTML] **Vitamin D: A simpler alternative to tocilizumab for trial in COVID-19?** M Silberstein - Medical Hypotheses, 2020 - Elsevier ... Dr Guglielmo Gianotti, the director of surgery at Cremona Hospital in Northern Italy (considered to be one of the hardest hit ... It's being trialled at the Pascale Cancer Institute in Naples with very encouraging results.”[2] Indeed, a trial of tocilizumab for COVID-19 has recently ...

[HTML] **Anti-IL6R role in treatment of COVID-19-related ARDS** FM Buonaguro, I Puzanov, PA Ascierio - 2020 - ... -medicine.biomedcentral.com ... Why tocilizumab could be an effective treatment for severe COVID-19 ... Impact of tocilizumab therapy on antibody response to influenza vaccine in patients with rheumatoid ... Istituto Nazionale Tumori IRCCS Fondazione “G. Pascale”, Via Mariano Semmola, 80131, Naples, Italy ...

[HTML] **Coronavirus Disease (COVID-19) in Italy: Analysis of Risk Factors and Proposed Remedial Measures** - G Di Lorenzo, R Di Trolio - Frontiers in Medicine, 2020 - frontiersin.org ... TOCIVID-19 trial, 330 hospitalized COVID-19 patients with pneumonia with early signs of respiratory failure ... 3. Remuzzi A, Remuzzi G. Covid 19 and Italy ...

Further results from Google Scholar search "tocilizumab italy"

[HTML] **Tocilizumab for the treatment of severe COVID-19 pneumonia with hyperinflammatory syndrome and acute respiratory failure: A single center study of 100 ...** P Toniati, S Piva, M Cattalini, E Garrafa, F Regola... - Autoimmunity ..., 2020 - Elsevier A

hyperinflammatory syndrome (HIS) may cause a life-threatening acute respiratory distress syndrome (ARDS) in patients with COVID-19 pneumonia. A prospective series of 100 consecutive patients admitted to the Spedali Civili University Hospital in Brescia (Italy) ...

[HTML] **Efficacy of Tocilizumab in Limbic Encephalitis with Anti-CASPR2 Antibodies** M Benucci, L Tramacere, M Infantino... - Case Reports in ..., 2020 - hindawi.com ... Case Report | Open Access. Volume 2020 |Article ID 5697670 | 5 pages | <https://doi.org/10.1155/2020/5697670>. Efficacy of Tocilizumab in Limbic Encephalitis with Anti-CASPR2 Antibodies ... 1 Rheumatology Unit, S. Giovanni di Dio Hospital, Florence, Italy ...

Covid-19 pneumonia in a kidney transplant recipient successfully treated with Tocilizumab and Hydroxychloroquine - F Fontana, G Alfano, G Mori, A Amurri... - American Journal of ..., 2020 - Wiley Online Library ... Article type : C - Case Report Covid-19 pneumonia in a kidney transplant recipient successfully treated with Tocilizumab and Hydroxychloroquine ... 1 Struttura Complessa di Nefrologia e Dialisi, Azienda Ospedaliero-Universitaria di Modena, Modena, Italy ...

5PSQ-057 Analysis of the incidence of hepatotoxicity associated with the use of tocilizumab L Cantarelli, ER Santana, FG Nicolas, BDR Garcia... - 2020 - ejhp.bmj.com ... These results, as indicated by the European Medicines Agency, show the need for liver function monitoring in patients treated with tocilizumab ... 1University of Milan, Department of Pharmacy, Milan, Italy; 2Asst Santi Paolo E Carlo, Pharmacy Unit, Milan, Italy ...

[PDF] **Tocilizumab: A new opportunity in the possible therapeutic arsenal against COVID-19** Y Ortiz-Martínez - Travel Medicine and Infectious Disease, 2020 - researchgate.net ... glass opacities) were reported in a 64-year-old man 14 days after the administration of tocilizumab as a treatment of COVID-19 pneumonia in Milan, Italy.5 Moreover, a 57-year-old patient in Switzerland with insulin- dependent ...

Google Scholar search "remdesivir covid-19 italy" - first 10 results

[HTML] **Compassionate use of remdesivir for patients with severe Covid-19** - J Grein, N Ohmagari, D Shin, G Diaz... - ... England Journal of ..., 2020 - Mass Medical Soc Abstract Background Remdesivir, a nucleotide analogue prodrug that inhibits viral RNA polymerases, has shown in vitro activity against SARS-CoV-2. Methods We provided remdesivir on a compassionate-...

Remdesivir: A Review of Its Discovery and Development Leading to Emergency Use Authorization for Treatment of COVID-19 - RT Eastman, JS Roth, KR Brimacombe... - ACS Central ..., 2020 - ACS Publications ... Journal Logo. Remdesivir: A Review of Its Discovery and Development Leading to Emergency Use Authorization for Treatment of COVID-19. Richard T. Eastman Richard T. Eastman. National Center for Advancing Translational ...

2020-05-01 DAILY UNM GLOBAL HEALTH COVID-19 BRIEFING - CG Lambert, S Stoicu, I Hendrix, L Sloane... - 2020 - digitalrepository.unm.edu ... More NYT NM praise. Belief enhances compliance. Italy cardiac arrests. Non-COVID vaccine backlog. Africa investments ... Page 7. Drugs, Vaccines, Therapies, Clinical Trials • US FDA issues an emergency use authorization for remdesivir for the treatment COVID-19 ...

[HTML] **Remdesivir for severe acute respiratory syndrome coronavirus 2 causing COVID-19: An evaluation of the evidence** - Y Cao, Q Deng, S Dai - Travel Medicine and Infectious Disease, 2020 - Elsevier ... It has spread to other countries, such as Korea, Japan, Italy, Singapore, and Iran,

with ... This case has convinced the public that remdesivir could become a new “specific drug” for COVID-19 ...

SARS CoV-2: Recent Reports on Antiviral Therapies Based on Lopinavir/Ritonavir, Darunavir/Umifenovir, Hydroxychloroquine, Remdesivir, Favipiravir and Other ... M Costanzo, MAR De Giglio... - Current medicinal ..., 2020 - europepmc.org ... Italy ... employed in the treatment of the disease caused by SARS CoV-2 coronavirus, also referred to as COVID-19 (COronaVirus Disease 19) ... In addition, remdesivir, which has been previously administered to Ebola virus patients, has also proven effective in the US against ...

[HTML] **National institute for the infectious diseases “L. Spallanzani”, IRCCS. Recommendations for COVID-19 clinical management** - E Nicastrì, N Petrosillo, TA Bartoli, L Lepore... - Infectious Disease ..., 2020 - ncbi.nlm.nih.gov ... The first autochthonous infection case was confirmed in Italy on February 21 2020 ... NIH clinical trial of remdesivir to treat COVID-19 begins ...

[HTML] ... **for quantification of the prodrug remdesivir and its metabolite GS-441524: a tool for clinical pharmacokinetics of SARS-CoV-2/COVID-19 and Ebola virus ...** V Avataneo, A de Nicolò, J Cusato... - Journal of ..., 2020 - ncbi.nlm.nih.gov ... of a UHPLC-MS/MS method for quantification of the prodrug remdesivir and its ... GS-441524: a tool for clinical pharmacokinetics of SARS-CoV-2/COVID-19 and Ebola ... Pharmacogenetics, Amedeo di Savoia Hospital, Department of Medical Sciences, University of Turin, Turin, Italy ...

2020-04-10 DAILY UNM GLOBAL HEALTH COVID-19 BRIEFING CG Lambert, S Anyona, S Stoicu, A Nestsiarovich... - 2020 - digitalrepository.unm.edu ... virus. Rome's ISS public health institute estimates that 10 percent of those infected with the coronavirus in Italy work in healthcare. • An ... dedicated workspace. • Clinical data support the use of Remdesivir for severe COVID-19 In 53 ...

[PDF] ... **Viruses: Temperature and Physical Environment. Temperature Control May Exploit Virus Hypo-Thermolability; A Possible, Immediate Solution for COVID-19** - G Belcaro, U Cornelli, MR Cesarone, B Feragalli... - Med Clin Res, 2020 - medclinres.org ... 2Radiology, Dip SMO Biotec, D'Annunzio University, Chieti, Italy *Corresponding author Giovanni Belcaro, IRVINE3 Vascular/Circulation Labs, Chieti-Pescara University, Pescara, Italy, and Samaritans, Spoltore, PE, Italy ... Other trials with Remdesivir for COVID-19 patients in ...

Efficacy of remdesivir versus placebo for the treatment of COVID-19: A protocol for systematic review and meta-analysis of randomized controlled trials - D Gebrie, D Getnet, T Manyazewal - medRxiv, 2020 - medrxiv.org ... results [18-19]. Remdesivir is nucleotide analog prodrug and shows broad spectrum antiviral activity against many RNA viruses including SARS-CoV-2 [20-21]. Remdesivir has been reported as a treatment of COVID-19 in United States, China and Italy [13,15, 22]. while results ...

Tocilizumab and remdesivir in news

Google news - 9 Maggio 2020 - past week "tocilizumab italia"

Coronavirus a Brescia, la cura con Tocilizumab funziona ... Corriere della Sera-May 8, 2020 - La strada contro il Covid 19 è stata la scelta del Tocilizumab (il primo utilizzo specifico in Italia si è registrato al Cotugno di Napoli), un farmaco biologico che ...

Ascierto celebrato dal mondo, "snobbato" dall'Italia. Il ... AreaNapoli.it-May 6, 2020 - Il Tocilizumab va e zittisce i presuntuosi. Paolo Ascierto è stato subito attaccato da alcuni suoi colleghi in giro per l'Italia, ma il suo farmaco funziona, eccome.

La “cura Ascierto” accolta dal mondo intero: primi risultati ... Vesuvio Live-May 6, 2020

Il farmaco della “Cura Ascierto” salva vite anche in ... Vesuvio Live-May 4, 2020 - In Italia il Tocilizumab è stato somministrato a circa 3 mila pazienti e al momento sia l'Istituto Nazionale Tumori IRCCS Fondazione G. Pascale, che l'oncologo ... Gli USA a lezione da Ascierto: gli americani studiano l'uso del ... DailyNews 24-May 2, 2020

Coronavirus, le ultime notizie dall'Italia e dal mondo Living-19 hours ago - In Italia, dall'inizio dell'epidemia di Coronavirus, almeno 217.185 persone hanno ... Tra questi l'Avigan, il Favipiravir, il Tocilizumab e il Remdesivir, tutti farmaci ...

Story image for tocilizumab italia from Yeslife - La Plasmaterapia arriva anche al Cotugno di Napoli - Yeslife-May 6, 2020 LEGGI ANCHE —> Ascierto: “Adesso il Tocilizumab è usato in tutta Italia e funziona”. terapia plasma Il Professor Ascierto (foto dal web). I primi risultati si ... Coronavirus, il Cotugno vuole sperimentare la terapia al ... Napoli Fanpage-May 5, 2020

Coronavirus, lo studio del San Raffaele: “L'anti artrite anakinra ... Il Fatto Quotidiano-19 hours ago Un altro farmaco anti artrite – dopo il tocilizumab – sembra essere efficace ... accessibile e immediatamente disponibile in Italia e in gran parte del mondo, ...

About ANAKINRA see 25/03/2020 - **Trial Sobi.IMMUNO-101** (emapalumab and anakinra)

“Il plasma non costa nulla, ma Big Pharma ha interesse nel ... Il Riformista-May 7, 2020 ... positivi quella che in Italia viene individuata come “cura Ascierto”, sperimentazione autorizzata dall'Aifa e realizzata somministrando ai pazienti il tocilizumab, ...

Coronavirus, l'Aifa approva cinque nuove sperimentazione di ... Il Secolo d'Italia-May 4, 2020 L'Aifa, l'Agenzia italiana del farmaco, ha autorizzato cinque nuove ... i seguenti bracci di studio: tocilizumab, sarilumab, siltuximab, canakinumab, baricitinib, ... Quali sono i farmaci efficaci contro il Covid-19, i chiarimenti ... Agenzia Nova-May 4, 2020

About the drugs see 01/05/2020 - **Trial AMMURAVID** - Tocilizumab, Sarilumab, Siltuximab, Canakinumab, Baricitinib, Metilprednisolone.

Google news - 9 Maggio 2020 - past week "remdesivir italia"

Coronavirus, l'agenzia europea del farmaco avvia valutazione ... Il Fatto Quotidiano-May 2, 2020 Gli studi sono promettenti e il remdesivir, l'antivirale utilizzato nel trattamento dei pazienti Covid in molti paesi compresa l'Italia come farmaco sperimentale, ... Coronavirus, gli Usa autorizzano il farmaco anti-ebola ... Vesuvio Live-May 2, 2020 - Remdesivir farmaco Coronavirus: cos'è, a cosa serve Teleclubitalia-May 2, 2020 - Remdesivir, l'Ema avvia procedura rapida per valutare l'efficacia Sputnik Italia-May 3, 2020 - Coronavirus: gli Stati Uniti hanno autorizzato l'uso d ... Forbes Italia-May 2, 2020

Il Giappone approva remdesivir contro Covid-19 www.aboutpharma.com-May 8, 2020 Lunedì 4 maggio, quando è iniziata la fase 2 qui in Italia, il Primo ministro Shinzo Abe ha prolungato la fase di emergenza (e quindi delle restrizioni) nella ...

Il dilemma di Gilead: fare soldi con la cura del Coronavirus o ... Investire Oggi-1 hour ago - Gilead aveva sperimentato senza successo il remdesivir per la cura del virus ... per imporre un calmieramento dei prezzi (vedasi le mascherine in Italia) sarebbe ...

Novità positive su Remdesivir e altri farmaci - Scienza in rete-May 7, 2020 Trial clinici, anche in Italia, ne hanno dimostrato gli effetti positivi, e sono ora in corso almeno 16 trial randomizzati. Inoltre, altri anticorpi monoclonali che hanno ...

See please some sentences from this article.

Novità positive su Remdesivir e altri farmaci COVID-19/Farmaci di Ernesto Carafoli, Enrico Bucci, archived <http://archive.is/Ydlqh>

"L'FDA ha approvato il Remdesivir per la terapia dei pazienti con Covid-19: si tratta di un farmaco che impedisce la replicazione del virus, ... Il Remdesivir non è, comunque, l'unico farmaco che può aiutarci contro Covid-19, come spiegano Enrico Bucci ed Ernesto Carafoli in quest'articolo, e lo stesso Remdesivir potrebbe essere sostituito da un farmaco che agisce in modo analogo ma, da studi condotti sui topi, sembra essere ancora più potente. ... torniamo al Remdesivir: ... Questi sono risultati di grande importanza, ma è chiaro che il Remdesivir non è la medicina-miracolo che, da sola, risolve il problema Covid-19. ... Altri farmaci per il trattamento di Covid-19. Oggi, come era necessario dopo che il **Remdesivir**, ha, per così dire, rotto il ghiaccio, è sul Remdesivir che abbiamo deciso di concentrarci; ma, anche solo per completezza, accenniamo ancora una volta, **agli altri farmaci che sono oggetto di trial randomizzati già in stadio avanzato**. ... Dunque vi sono fra gli altri:

1) gli **inibitori delle proteasi** della cellula ospite, che sono necessarie per il priming della proteina spike del virus in modo da consentirle di interagire con il **recettore ACE 2** della cellula bersaglio e di promuovere l'ingresso del virus nella cellula: il **camostat desilato** e il **nafamostat desilato** ... impediscono la penetrazione del virus nella cellula bersaglio. ...

2) Il Tocilizumab, un anticorpo monoclonale che agisce contro l'interleuchina 6 e contro la tempesta citochinica che la sua produzione eccessiva innesca. Trial clinici, anche in Italia, ne hanno dimostrato gli effetti positivi, e ... Inoltre, altri anticorpi monoclonali che hanno come bersaglio la stessa o altre interleuchine sono anch'essi entrati in sperimentazione clinica

3) La cloroquina e l'idrossicloroquina, farmaci antimalarici usati da tempo anche nella terapia di sindromi autoimmuni come ... Ospedali e medici coinvolti nel trattamento di pazienti Covid-19 ne fanno uso e descrivono frequentemente effetti positivi. Trial ufficiali randomizzati su larga scala e in cieco, però, non sono stati ancora completati,

4) Gli **anticorpi monoclonali** contro il virus, che sono stati isolati sia da pazienti (in Cina) che da ibridomi murini, sembrano un'altra strada promettente: tuttavia, per questi valgono gli stessi caveat sui vaccini circa la capacità del virus di mutare. Il **plasma iperimmune**, una strategia più datata e in qualche modo imparentata, ... ; rimane il fatto, tuttavia, che l'utilizzo del plasma è una strategia limitata nella disponibilità della materia prima, al contrario dei più moderni anticorpi monoclonali, ed è una strategia che, come sottolineato persino da AVIS, non è scevra di ostacoli di varia natura

5) L'ultimo farmaco giunto sulla scena del Covid-19 che vale la pena di citare è l'**Ivermectina**: un antiparassitario noto per la sua attività antivirale a largo spettro usato anche in terapia umana per affezioni dermatologiche. Un interessante studio australiano ha dimostrato che la sua aggiunta a cellule infettate con SARS_CoV-2 riduce ... "

Drugs mentioned in the above article are "camostat desilato" and "nafamostat desilato" and "ivermectina". Here some information.

Camostat

"Camostat mesilato (INN; codice di sviluppo FOY-305) della Giapponese Ono Pharmaceutical Co., Ltd., con il nome commerciale di Foipan, è un inibitore della serin proteasi. ..."

<https://it.wikipedia.org/wiki/Camostat>

"The Impact of Camostat Mesilate on COVID-19 Infection (CamoCO-19)"

<https://clinicaltrials.gov/ct2/show/NCT04321096>

Nafamostat

"Nafamostat mesylate (INN), a synthetic serine protease inhibitor, is a short-acting anticoagulant, [1] which also has some antiviral and anti-cancer properties.[2] Nafamostat is formulated with HCl salt due to its basic tendencies. This is a fast-acting proteolytic inhibitor and used during hemodialysis to prevent the proteolysis of fibrinogen into fibrin.[3]"

<https://en.wikipedia.org/wiki/Nafamostat>

"Nafamostat inhibits SARS-CoV-2 infection, preventing COVID-19 transmission"

<https://www.drugtargetreview.com/news/58915/nafamostat-inhibits-sars-cov-2-infection-preventing-covid-19-transmission/>

Ivermectina

"L'Ivermectina è un farmaco antelmintico. Uccide o promuove l'espulsione di vermi parassiti intestinali. In caso di strongiloidosi uccide il parassita, mentre in caso di oncocercosi uccide solo i vermi in fase di sviluppo, ma non quelli adulti." <https://www.humanitas.it/enciclopedia/principi-attivi/farmaci-dell-apparato-gastrointestinale/ivermectina>

"Colchicina e Ivermectina, nuove speranze anti SARS-CoV-2" COVID-19/Farmaci, di Simonetta Pagliani. <https://www.scienzainrete.it/articolo/colchicina-e-ivermectina-nuove-speranze-anti-sars-cov-2/simonetta-pagliani/2020-04-08>

"Una potenziale arma contro il Covid-19 da un brevetto 'made in italy'"

<https://www.cnr.it/it/news/9341/una-potenziale-arma-contro-il-covid-19-da-un-brevetto-made-in-italy>

"Covid-19, la ricerca guarda a un antiparassitario. Già scoperto dal CNR di Milano" - "È di pochi giorni fa la notizia pubblicata da un gruppo di ricercatori australiani, sulla rivista scientifica Antiviral Research, della capacità di un farmaco (Ivermectina) di eliminare il Covid-19 entro 48 ore dall'infezione su cellule umane. L'Ivermectina è un noto antiparassitario che viene utilizzato nella cura di alcune gravi malattie tropicali. La scoperta del suo uso come antivirale è stata brevettata per la prima volta nel 2009 da un gruppo di ricercatori italiani, guidati da Eloise Mastrangelo e Mario Milani, dell'Istituto di Biofisica (IBF) del CNR di Milano."

<https://www.openinnovation.regione.lombardia.it/it/b/572/covidlaricercaguardaunantiparassitariogi scopertodalcnrdimilano>

"**Ivermectin** is a medication used to treat many types of parasite infestations.[1] This includes head lice, scabies, river blindness (onchocerciasis), strongyloidiasis, trichuriasis, ascariasis, and lymphatic filariasis.[1][2][3][4] It can be taken by mouth or applied to the skin for external infestations.[1][5] Use in the eyes should be avoided.[1]" <https://en.wikipedia.org/wiki/Ivermectin>

"The FDA-approved drug ivermectin inhibits the replication of SARS-CoV-2 in vitro" Leon Caly, Julian D. Druce, Mike G. Catton, David A. Jans, Kylie M. Wagstaff, Antiviral Research, Volume 178, June 2020, 104787. <https://doi.org/10.1016/j.antiviral.2020.104787>

"Ivermectin and COVID-19: a report in Antiviral Research, widespread interest, an FDA warning, two letters to the editor and the authors' responses Antiviral Res. 2020 Apr 21 : 104805. doi: 10.1016/j.antiviral.2020.104805
