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PITAL - Regulating the inflow of patients

Participants
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Description
The arrival of emergency patients to hospitals and clinics occurs in two ways: spontaneous arrival of patients to the various establishments, and transfer of emergency patients by public ambulance services. In Temuco, public ambulances[1] depend on the SAMU Araucanía Emergency Regulatory Center. Calls to the 131 emergency number are received by one of the operators and it is decided what to do in each case. This decision is made by professional supervisors from nursing, obstetrics, and physical therapy in conjunction with Regulatory Physicians. It is then decided what type of ambulance will be sent[2] and where the patient will be taken, **regularly to the nearest hospital**, as outlined by the law on the transfer of critical patients. Ambulances can provide pre-hospital care[3]. In the current contingency, operating the entire Health Service in an integrated way is a must, in order to refer patients to an establishment that has the necessary resources depending on the patient's condition.

Elsewhere, the **Central Hospital Bed Management Unit** (UGCC) "has the following objectives: to support the referral of patients who require a bed **in a public facility**, to monitor **daily** those patients awaiting beds in Hospital Emergency Units, reporting to the authorities and to the Health Services executives, to monitor **daily** the use of critical beds on a national level, to monitor and **manage FONASA (public healthcare system) patients protected by the Emergency Law in private establishments nationwide**." "... The UGCC seeks to optimize the use of bed resources in the public network in complementarity with the private network. In order to achieve this, bed requirements are managed and the days of stay are permanently monitored, especially for patients referred to the private health sector, in order to control and optimize the use of the financial resources (expense) that this management entails"[4]. The information used for these

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[1] Res Exenta Nº 338 del 2 de Marzo de 2005
https://www.minsal.cl/sites/default/files/files/RESOLUCION_338_05%20SAMU.pdf
NORMA GENERAL TECNICA SISTEMA DE ATENCION MEDICA DE URGENCIA SAMU
[2] Básica (conductor y técnico paramédico), avanzada (conductor, técnico paramédico y reanimador) o medicalizados (conductor, técnico paramédico y médico
[3] https://samu.cl/bases-y-centro-regulador/
[4] http://www.biblioteca.digital.gob.cl/handle/123456789/3625

activities is daily and not updated with the speed required in a pandemic period. The UGCC does have a "Computer System", with which the requirements are handled on a national level[5]. We are unsure as to the quality of this information.

The Flow, according to the UGCC itself is as follows: *"Firstly, the search for a bed is carried out in the public system network. If there is no space, it continues with the private sector, the first search destination being those clinics that are in the tender for purchase by Diagnosis Related Groups according to the order established by FONASA and the portfolio of services offered by the provider. In the event that there is no bed under this agreement, the search continues towards the clinics in agreement for direct DRG treatment (which operates in the same way) and as a last alternative, searches in clinics that are not in agreement or outside of this ranking."*

The UGCC would then have daily information that is provided by each hospital (currently public, but which should include private ones, given the state of the disaster) by a nurse.

According to a definition from 2013[6],
*"The UGCC aims to **strengthen the management of hospital beds within the public-private network throughout the country. Through the use of online software, the aforementioned activities are carried out in the country's 29 Health Services and its high, medium, and low complexity hospitals, which must enter and update their data daily in the software**. The registered information covers various areas: Hospital Emergency Unit situation, occupation of critical, acute, and basic beds, and lastly, the registration of the transfer of the patient by request of beds to another public or private establishment. **At the same time, there is a call center, which receives requests from hospitals, to search for beds in the public system. To do this, the software is accessed by referring and transferring patients to the requested bed. Otherwise, the search is done within the private sector**."*

What is required

1. Recruit all SSAS hospital establishments to deliver information about the availability of beds (and resources[7]) in each establishment, at the time of any change (occupation, release, change in classification of beds). In turn, all establishments will have access to this information.
2. Develop, in the shortest possible time, a software that would operate first on computers, later as an App, if this is necessary and if it facilitates the operation. This software will collect in the cloud the information provided by each hospital establishment in real time, making it available to hospital doctors, regulatory doctors, and the UGCC the situation of ICU, Intermediate, basic beds and the number of ventilators in each hospital/clinic. This means knowing the number of Occupied, Unused, and Assigned beds. Each hospital/clinic will establish this, considering special situations. For example, a three-bed room occupied by a patient diagnosed with COVID-19 means that all three beds are Occupied.
3. When starting the operation, an initial cadaster must be made.
4. For the purposes of SAMU, primary transfers followed by secondary transfers should be

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[5] https://www.minsal.cl/wp-content/uploads/2018/03/Informe-UGCC-2014- 2018.pdf
[6] http://www.salud-e.cl/proyectos/registros-nacionales/sistema-informatico-de-la- unidad-de-gestion-centralizada-de-camas/
[7] For example beds that can be used as staff is in place.

avoided as much as possible. In other words, it is preferable that ambulances do not take the patients to the closest facility, but rather to the one that best allows the management of the patients, considering their severity and the availability of beds or other resources.

5. Collaborate, if required, in managing beds, in order to make the best possible use of the capacity, competencies and resources available in the SSAS.

DELIVERABLE:

The result of this project should be a decision support system for Hospital Doctors, the UGCC, and Regulatory Doctors who, using all the information mentioned above, propose the assignments and movements of patients. This system should work in a simple way and be adapted to the tools currently in use in the Regulatory Center, or to emergency physicians.