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LEARNING FROM SARS-CoV-2 EXPERIENCE TO FACE FUTURE EMERGENCIES: ELABORATION OF AN HOSPITAL PHARMACY EMERGENCY PREPAREDNESS PLAN

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WHAT WAS DONE?

We decided to start a self-auditing process, we aimed to realize an emergency preparedness plan and a procedure, created from our experience, which will be helpful to face future emergencies.

WHY WAS IT DONE?

The discovering of Coronavirus disease in 2019 and the subsequent outbreak in many countries and regions constituted in the first 5 months of 2020 a prominent issue worldwide: hospital pharmacists as well as other health care personnel were hit by pandemic emergency and faced a great challenge. We as hospital pharmacists had to cope with shortage of drugs, disinfectants, test and reagents, Intensive Care Unit medical devices, personal protective equipment. For this reason, we needed to start interventions to meet the needs of the front-line medical and nurse staff.

HOW WAS IT DONE?

The starting point was our Hospital Pharmacy process map, which identifies all pharmacy activities. For each one, actions taken during the emergency were described. Regulations at local and national level were analysed together with literature and international statements about hospital pharmacist role during health emergency.

WHAT HAS BEEN ACHIEVED?

We developed a process map in which we split up pharmacy activities into five big areas:

- DIRECTION AND COORDINATION: team communication, role and responsibilities definition ("role mapping"); multidisciplinary external communication with hospital management facilities;
- 2. LOGISTICS AND ADMINISTRATION (Purchase, management and distribution of medical products): an inventory of drugs, medical devices and diagnostics was created, especially for the ones essential to challenge SARS-CoV-2 health emergency;
- RESEARCH, GALENIC, "PATIENT CARE": therapeutic protocols, galenic preparation, studies, home-therapies distribution and communication with patients;
- PHARMACOVIGILANCE: close monitoring of potential Adverse Drug Reactions (ADRs);
- REGULATIONS AND LEGISLATION: Updating and intra-hospital divulgation.

SHARING OF PROTOCOLS (PHARMACOLOGICAL TREATMENTS, MEDICAL INTERVENTIONS THAT REQUIRE SPECIFIC MEDICAL

POSSIBLE EXTENSION OF THE THERAPEUTIC PLAN (REGIONAL/NATIONAL DRUG AGENCY INDICATIONS)

COMPASSIONATE USE / CLINICAL STUDIES: FACILITATION OF URGENT APPROVAL; TRACEABILITY AND MONITORING

DEVICES, DISINFECTION, PPE USE, SEDATION, ANALGESIA, ANTIBIOTIC THERAPY)

PREPARATION OF KITS CONTAINING HOME THERAPY, PROVIDED AT HOSPITAL DISCHARGE

• OFF LABEL AND COMPASSIONATE USE DRUGS: TRACEABILITY AND MONITORING

HOME DRUG DELIVERY (REDUCTION OF HOSPITAL ACCESSES)

PATIENT COMMUNICATION AND INFORMATION,

DIRECT DISTRIBUTION OF DRUGS:

"TRIAGE" OF PATIENTS

ADAPTING GALENIC PRODUCTION IN CASE OF DRUGS' SHORTAGE OR DUE TO PARTICULAR NEEDS

From this emergency process we created an emergency preparedness plan and an internal procedure, in which, for every activity area, we assigned specific roles and responsibilities and set operating instructions.

DIRECTION AND COORDINATION TEAM-WORK, ROLE MAPPING AND COMMUNICATION • TEAM EDUCATION AND RESPONSIBILITY: INFORMATION, COMMUNICATION, DEFINITION OF ROLES, DESIGNATION OF AREA COORDINATORS • TEAM SAFETY: STAFF DISTANCING AND PPE PROVIDING, SMART WORKING (ONLY FOR SPECIFIC ROLES); REORGANISATION OF WORKING AREAS (LIMITED ACCESS TO PHARMACY THROUGH THE MAIN ENTRANCE AND LIFT **RESERVED TO PHARMACY EMPLOYEES)** • INTERNAL COMMUNICATION: PRELIMINARY AND UPDATING MEETINGS • MULTIDISCIPLINARY EXTERNAL COMMUNICATION: INDIVIDUATION OF A CONTACT PERSON IN EACH WARD INVOLVED, IN ORDER TO RECEIVE A CONTINUOUS UPDATE ON THERAPIES AND THE GENERAL SITUATION GOING ON • TEMPORAL ORGANISATION: EARLY PERIOD (MEET IMMEDIATE NEEDS), MAINTAINANCE PERIOD AND FINAL PERIOD LOGISTICS AND ADMINISTRATION PURCHASE, MANAGEMENT AND DISTRIBUTION OF MEDICAL PRODUCTS REQUEST RESPONS ESSENTIAL RESOURCES IDENTIFICATION AND MAPPING (INVENTORY) LISTS OF ESSENTIAL DRUGS (SEDATIVES AND ANALGESICS, ANTIBIOTICS, ANTI-INFLAMMATORY, ANTIVIRALS...), MEDICAL **DEVICES AND DIAGNOSTICS** IDENTIFICATION OF RESOURCES WITH SHORTAGE RISK AND ALTERNATIVE SUBSTITUTIONS (FOREIGN IMPORTATION, IDENTIFICATION OF ALTERNATIVE DISTRIBUTORS) STRUCTURAL RESOURCES: WAREHOUSE REORGANISATION CREATING SPACES WHERE TO STORE NEW OR INCREASED RESOURCES. ID EST. FRIDGES RATHER THAN COLD STORAGE ROOMS CONTINUOUS MONITORING OF STOCK CONSUMPTION (INVENTORY UPDATING) • TIMING REORGANISATION (WARD REQUESTS PROVIDED THE PREVIOUS DAY) • BUREAUCRACY STREAMLINING: PAPER-MADE FORMS SUBSTITUTED WITH SPECIFIC E-MAILS ADDRESSED TO PHARMACY PRIORITISATION OF ORDERS BASED ON ESSENTIAL RESOURCES RESEARCH, GALENIC, PATIENT CARE VIGILANCE AND RISK ASSESSMENT THERAPEUTIC PROTOCOLS, GALENIC PREPARATION, STUDIES, THERAPIES DISTRIBUTION AND COMMUNICATION WITH PATIENTS

APPROPRIATENESS

- CORRECT USE OF PPE (INTERNAL AND EXTERNAL) SENSITISATION TO PHARMACOVIGILANCE AND SIGNALLING COLLECTION
- (LARGE USE OF EXPERIMENTAL DRUGS AND OFF LABELS) ADRs' AND INTERACTIONS RISK: NOTIFICATION

DISTANCING MEASURES

REGULATIONS AND LEGISLATION

UPDATING E INTRA-HOSPITAL DIVULGATION

- **NATIONAL DRUG AGENCY INDICATIONS**
 - MINISTERIAL RECOMMENDATIONS LOCAL, REGIONAL, NATIONAL, INTERNATIONAL (WHO) GUIDELINES

WHAT NEXT?

The emergency preparedness plan developed from our experience during SARS-CoV-2 emergency, will pharmacists hospital allow anticipate, plan, and prepare strategies in case of future health emergencies, due to biologic infective agents. Our and other Hospital Pharmacies will be able to overcome priority drugs shortages, to set a drug home delivery service, offer extemporary solutions, communicate and inform patients...