Civica Rx and Hikma announce shipments of Heparin and seven other essential injectable medicines

Marks first key milestone for the Civica Rx-Hikma partnership, which is set to supply 14 essential medicines to US hospitals and patients

SALT LAKE CITY and LONDON, December 10, 2019 – Civica Rx (Civica, Inc.) and Hikma Pharmaceuticals PLC (Hikma, Group) (LSE: HIK) (NASDAQ Dubai: HIK) (OTC: HKMPY) (rated Ba1/stable Moody's and BB+/positive S&P), the multinational generic pharmaceutical company, today announced imminent shipments of Heparin Sodium Injection, USP, and seven other essential injectable medicines, with additional products to follow in the near term in the US through its affiliate, Hikma Pharmaceuticals USA Inc. [1]

Today's announcement comes as industry experts work to avoid an extended shortage of Heparin, the preferred anticoagulant for many hospitalized patients. Heparin is commonly prescribed for patients with significant blood clots in their lungs or clogged arteries, and patients receiving dialysis, or undergoing cardiac surgery. It is prescribed to more than 10 million Americans every year.

Shortages of Heparin, which is derived from porcine intestinal mucosa, may be possible due to an outbreak of African Swine Fever that has killed an unprecedented number of the world's pigs. The outbreak has predominantly impacted China, home to half of the world's swine population. Hikma sources its Heparin raw materials from the US, and has not been impacted.

In addition to Heparin, the Civica Rx-Hikma partnership will be shipping additional medications, including essential shortage medications[^], before the end of the year, including:

- **Naloxone Hydrochloride Injection, USP** – Naloxone is an opioid antagonist medication used to block or reverse the effects of opioid drugs, particularly drug overdoses. It works by blocking the effects of the opioid in the brain and is often used in hospitals and EMS services.
- **Dexamethasone Sodium Phosphate Injection, USP**[^] – Dexamethasone is a steroid used to treat various conditions such as severe allergic reactions, arthritis, blood diseases, breathing problems, certain cancers, eye diseases, intestinal disorders, and skin diseases. It decreases the body's natural defensive response and reduces symptoms such as swelling and other physical reactions.
- **Glycopyrrolate Injection, USP** – Glycopyrrolate is used in surgeries to reduce airway secretions or to prevent heart rhythm problems during anesthesia, intubation, or surgery.

[1] Hikma Pharmaceuticals USA Inc. was formerly known as West-Ward Pharmaceuticals Corp.
[^] Denotes essential shortage medication

- **Prochlorperazine Edisylate Injection, USP** – Prochlorperazine is used to control severe nausea and vomiting caused by chemotherapy, radiation therapy, and in the pre- and post-operative setting.
- **Ondansetron Injection, USP^ –** Ondansetron is used to prevent nausea and vomiting that may be caused by surgery or cancer chemotherapy.
- **Morphine Sulfate Injection, USP^ –** Morphine is a narcotic analgesic medication used to relieve moderate to severe pain. It may be also be used before or during surgery with an anesthetic.
- **Metoprolol Tartrate Injection, USP^ –** Metoprolol is a beta-blocker used to treat angina and hypertension. It is also used to lower the risk of death or need for hospitalization for heart failure.

"We are thrilled to be delivering on our partnership's promise to ensure vital medications are consistently available for hospitals and patients who need them," said Martin VanTrieste, President and CEO of Civica Rx. "These shipments reinforce our confidence in Hikma's expertise and manufacturing capabilities and it's especially gratifying that the initial deliverable of our partnership will help ensure an increased supply of heparin at a time when there is an ongoing threat to supply."

"As a leading provider of generic injectable medicines, Hikma is committed to working across the US healthcare system on long-term, sustainable solutions to help ensure a consistent supply of needed medicines to patients," said Riad Mishlawi, President, Hikma Injectables. "Our partnership with Civica is an excellent example of combining Hikma's strong manufacturing capabilities and strong quality and supply record with Civica's extensive network of more than 1,100 US hospitals. We are pleased that patients and healthcare providers across the country will now begin benefiting from Civica's forward-thinking approach."

Civica Rx & Hikma's Partnership

Under the partnership with Civica Rx, announced last July, Hikma will produce 14 essential sterile injectable medications for Civica, using Hikma's Abbreviated New Drug Applications (ANDAs) and Civica's National Drug Code (NDC) and label. These medicines are used daily by hospitals in emergency care, surgery, pain management and in treating hypertension.

Importantly, Civica Rx's ability to coordinate directly with manufacturers like Hikma enables it to ensure that the APIs (active pharmaceutical ingredients) in Civica Rx drugs are purchased from reputable, high-quality suppliers. As a result, Civica Rx and its partners manufacture and deliver generic drugs that conform to strict industry standards of quality, strength and purity.

Civica was founded in 2018 by leading US hospital systems concerned about generic drug shortages and philanthropic organizations passionate about improving healthcare. To date, more than 45 health systems are Civica members, representing more than 1,100 US hospitals and over 30 percent of all licensed US hospital beds.

Hikma is the third largest US supplier by volume of generic injectable medicines with a growing portfolio of more than 100 injectable products. Today, one in every six generic injectable medicines used in US hospitals is a Hikma product. During the last three years, Hikma has launched more than 20 medications

into US shortage situations and in 2016 the company received a Drug Shortage Assistance Award from the US Food and Drug Administration (FDA) for its role in preventing or alleviating drug shortages.

Earlier this fall, Civica delivered two essential antibiotics through its partnership with Xellia Pharmaceuticals to member hospitals which are being administered daily to patients nationwide. The organization plans to announce shipments of additional life-saving drugs in the near future.

-- ENDS --

About Civica Rx
Civica Rx was established in 2018 by health systems (CommonSpirit Health, HCA Healthcare, Intermountain Healthcare, Mayo Clinic, Providence St. Joseph Health, SSM Health, and Trinity Health) and philanthropies (Gary and Mary West Foundation, Laura and John Arnold Foundation, and Peterson Center on Healthcare) to reduce chronic generic drug shortages and related high prices in the United States. It exists in the public interest as a non-profit, non-stock corporation committed to stabilizing the supply of essential generic medications in a hospital setting.

Civica is committed to transparency and offers fair and sustainable prices to its member hospitals. It will also ensure it has dedicated manufacturing capacity for the medications that are most desperately needed in hospitals across the country through redundant manufacturing and a strategic safety stock of medications to help prevent drug shortages in the future.

Civica aims to stabilize the supply of antibiotics, anesthetics, cardiac medications, pain management medications, and other essential sterile injectable medicines used in hospitals daily. It is actively pursuing a three-pronged product supply strategy:

- Working with multiple generic drug manufacturers that have the US FDA approved manufacturing facilities and capacity to produce Civica labeled generic drugs, allowing manufacturers to re-enter the market or increase existing capacity.
- Developing Abbreviated New Drug Applications (ANDAs) for generic drugs and working with contract manufacturing organizations to produce Civica medications.
- Acquiring/building Civica manufacturing facilities using Civica's ANDAs

Find more information about Civica Rx at www.civicarx.org

About Hikma
Hikma helps put better health within reach every day for millions of people in more than 50 countries around the world. For more than 40 years, we've been creating high-quality medicines and making them accessible to the people who need them. Headquartered in the UK, we are a global company with a local presence across the United States (US), the Middle East and North Africa (MENA) and Europe, and we use our unique insight and expertise to transform cutting-edge science into innovative solutions that transform people's lives. We're committed to our customers, and the people they care for, and by thinking creatively and acting practically, we provide them with a broad range of branded and non-branded generic medicines. Together, our 8,400 colleagues are helping to shape a healthier world that enriches all our communities. We are a leading licensing partner, and through our venture capital arm, are helping bring innovative health technologies to people around the world. For more information, please visit: www.hikma.com

CONTACTS FOR MEDIA:

- Civica Rx, Debbi Ford, +1 970 227 3991, Debbi.ford@civicarx.org
- Hikma Pharmaceuticals PLC, Susan Ringdal, EVP, Strategic Planning and Global Affairs, +44 (0)20 7399 2760/ +44 7776 477050, uk-investors@hikma.uk.com; Steve Weiss, US Communications and Public Affairs, +1 732 720 2830/ +1 732 788 8279, sweiss@hikma.com;

See below for Important Safety Information regarding products containing Boxed Warnings, which includes Prochlorperazine Edisylate Injection, USP.

Important Safety Information for Prochlorperazine Edisylate Injection, USP:

BOXED WARNING

Increased Mortality in Elderly Patients with Dementia-Related Psychosis

Elderly patients with dementia-related psychosis treated with antipsychotic drugs are at an increased risk of death. Analyses of seventeen placebo-controlled trials (modal duration of 10 weeks), largely in patients taking atypical antipsychotic drugs, revealed a risk of death in drug-treated patients of between 1.6 to 1.7 times the risk of death in placebo-treated patients. Over the course of a typical 10-week controlled trial, the rate of death in drug-treated patients was about 4.5%, compared to a rate of about 2.6% in the placebo group. Although the causes of death were varied, most of the deaths appeared to be either cardiovascular (e.g., heart failure, sudden death) or infectious (e.g., pneumonia) in nature. Observational studies suggest that, similar to atypical antipsychotic drugs, treatment with conventional antipsychotic drugs may increase mortality. The extent to which the findings of increased mortality in observational studies may be attributed to the antipsychotic drug as opposed to some characteristic(s) of the patients is not clear. Prochlorperazine Edisylate Injection, USP is not approved for the treatment of patients with dementia-related psychosis.

CONTRAINDICATIONS

Do not use in patients with known hypersensitivity to phenothiazines. Do not use in comatose states or in the presence of large amounts of central nervous system depressants (alcohol, barbiturates, narcotics, etc.). Do not use in pediatric surgery. Do not use in pediatric patients under 2 years of age or under 20 lbs. Do not use in children for conditionsfor which dosage has not been established.

WARNINGS & PRECAUTIONS

The following warnings and precautions should be taken when administering Prochlorperazine Edisylate Injection, USP:

- Elderly patients with dementia-related psychosis treated with antipsychotic drugs are at an increased risk of death. Prochlorperazine Edisylate Injection, USP is not approved for the treatment of patients with dementia-related psychosis.
- **The extrapyramidal symptoms which can occur secondary to prochlorperazine may be confused with the central nervous system signs of an undiagnosed primary disease responsible for the vomiting, e.g., Reye's syndrome or other encephalopathy. The use of prochlorperazine and other potential hepatotoxins should be avoided in children and adolescents whose signs and symptoms suggest Reye's syndrome.**
- Tardive dyskinesia, a syndrome consisting of potentially irreversible, involuntary, dyskinetic

movements may develop in patients treated with antipsychotic drugs. The prevalence of the syndrome appears to be highest among the elderly, especially elderly women.

- A potentially fatal symptom complex sometimes referred to as Neuroleptic Malignant Syndrome (NMS) has been reported in association with antipsychotic drugs.
- Prochlorperazine may cause somnolence, postural hypotension, motor and sensory instability, which may lead to falls and, consequently, fractures or other injuries.
- An encephalopathic syndrome (characterized by weakness, lethargy, fever, tremulousness and confusion, extrapyramidal symptoms, leukocytosis, elevated serum enzymes, BUN and FBS) has occurred in a few patients treated with lithium plus an antipsychotic. In some instances, the syndrome was followed by irreversible brain damage.
- Patients with bone marrow depression or who have previously demonstrated a hypersensitivity reaction (e.g., blood dyscrasias, jaundice) with a phenothiazine should not receive any phenothiazine, including prochlorperazine, unless in the judgment of the physician the potential benefits of treatment outweigh the possible hazards.
- Prochlorperazine may impair mental and/or physical abilities, especially during the first few days of therapy.
- Phenothiazines may intensify or prolong the action of central nervous system depressants (e.g., alcohol, anesthetics, narcotics).
- Neonates exposed to antipsychotic drugs, during the third trimester of pregnancy are at risk for extrapyramidal and/or withdrawal symptoms following delivery. Prochlorperazine Edisylate should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. Safety for the use of prochlorperazine during pregnancy has not been established.
- There is evidence that phenothiazines are excreted in the breast milk of nursing mothers. Caution should be exercised when prochlorperazine is administered to a nursing woman.
- In clinical trial and postmarketing experience, events of leukopenia/neutropenia and agranulocytosis have been reported temporally related to antipsychotic agents.
- Prochlorperazine's antiemetic action may mask signs and symptoms of overdosage of other drugs and may obscure the diagnosis and treatment of other conditions such as intestinal obstruction, brain tumor and Reye's syndrome. When prochlorperazine is used with cancer chemotherapeutic drugs, vomiting as a sign of toxicity of these agents may be obscured by the antiemetic effect of prochlorperazine.
- Antipsychotic drugs elevate prolactin levels; the elevation persists during chronic administration.
- As with all drugs which exert an anticholinergic effect, and/or cause mydriasis, prochlorperazine should be used with caution in patients with glaucoma.
- Because phenothiazines may interfere with thermoregulatory mechanisms, use with caution in persons who will be exposed to extreme heat.
- Phenothiazines can diminish the effect of oral anticoagulants.
- Phenothiazines can produce alpha-adrenergic blockade.
- Thiazide diuretics may accentuate the orthostatic hypotension that may occur with phenothiazines.
- Antihypertensive effects of guanethidine and related compounds may be counteracted when phenothiazines are used concomitantly. Concomitant administration of propranolol with phenothiazines results in increased plasma levels of both drugs.
- Phenothiazines may lower the convulsive threshold; dosage adjustments of anticonvulsants may be necessary.
- The presence of phenothiazines may produce false-positive phenylketonuria (PKU) test results.
- **Children with acute illnesses (e.g., chickenpox, CNS infections, measles, gastroenteritis) or dehydration seem to be much more susceptible to neuromuscular reactions, particularly dystonias, than are adults. In such patients, the drug should be used only under close supervision.**

- Drugs which lower the seizure threshold, including phenothiazine derivatives, should not be used with metrizamide.
- Clinical studies of prochlorperazine did not include sufficient numbers of subjects aged 65 and over to determine whether elderly subjects respond differently from younger subjects. Geriatric patients are more sensitive to the side effects of antipsychotics, including prochlorperazine.

ADVERSE REACTIONS

NOTE: There have been occasional reports of sudden death in patients receiving phenothiazines. In some cases, the cause appeared to be cardiac arrest or asphyxia due to failure of the cough reflex.

Drowsiness, dizziness, amenorrhea, blurred vision, skin reactions and hypotension may occur. Neuroleptic Malignant Syndrome (NMS) has been reported in association with antipsychotic drugs. Cholestatic jaundice has occurred. Motor Restlessness may include agitation or jitteriness and sometimes insomnia. Pseudoparkinsonism symptoms may include mask-like facies, drooling, tremors, pillrolling motion, cogwheel rigidity, and shuffling gait. Avoid getting the injection solution on hands or clothing because of the possibility of contact dermatitis.

Not all of the following adverse reactions have been observed with every phenothiazine derivative but they have been reported with one or more and should be borne in mind when drugs of this class are administered: extrapyramidal symptoms (opisthotonos, oculogyric crisis, hyperreflexia, dystonias, akathisia, dyskinesia, parkinsonism); grand mal and petit mal convulsions; altered cerebrospinal fluid proteins; cerebral edema; intensification and prolongation of the action of central nervous system depressants (opiates, analgesics, antihistamines, barbiturates, alcohol), atropine, heat, organophosphorus insecticides; autonomic reactions (dryness of mouth, nasal congestion, headache, nausea, constipation, obstipation, adynamic ileus, ejaculatory disorders/impotence, priapism, atonic colon, urinary retention, miosis and mydriasis); reactivation of psychotic processes, catatonic-like states; hypotension (sometimes fatal); cardiac arrest; blood dyscrasias (pancytopenia, thrombocytopenic purpura, leukopenia, agranulocytosis, eosinophilia, hemolytic anemia, aplastic anemia); liver damage (jaundice, biliary stasis); endocrine disturbances (hyperglycemia, hypoglycemia, glycosuria, lactation, galactorrhea, gynecomastia, menstrual irregularities, false-positive pregnancy tests); skin disorders (photosensitivity, itching, erythema, urticaria, eczema up to exfoliative dermatitis); other allergic reactions (asthma, laryngeal edema, angioneurotic edema, anaphylactoid reactions); peripheral edema; reversed epinephrine effect; hyperpyrexia; mild fever after large IM doses; increased appetite; increased weight; a systemic lupus erythematosus-like syndrome; pigmentary retinopathy; with prolonged administration of substantial doses, skin pigmentation, epithelial keratopathy, and lenticular and corneal deposits.

EKG changes—particularly nonspecific, usually reversible Q- and T-wave distortions—have been observed in some patients receiving phenothiazines. Although phenothiazines cause neither psychic nor physical dependence, sudden discontinuation in long-term psychiatric patients may cause temporary symptoms, e.g., nausea and vomiting, dizziness, tremulousness.

For additional information, please refer to the Package Insert for full prescribing information, available on www.hikma.com.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit **http://www.fda.gov/medwatch** or call 1-800-FDA-1088.

Manufactured by:
Hikma Pharmaceuticals USA Inc. (formerly West-Ward, A Hikma Company)
Eatontown, NJ 07724 USA

Document identification number: WW20374