

## **Reading Comprehension**

### **A.) Introduction : Read the introduction to the article and answer the following questions :**

1.) Find two ways to say the patient became infected with malaria :

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2.) What happened when the patient was given artesunate ?

3.) Why did hospital investigators decide to look into the case ?

4.) Why are fake drugs so dangerous ?

5.) Find synonyms in the text for the following words/expressions :

a.) to cause/to provoke : \_\_\_\_\_

d.) an epidemic : \_\_\_\_\_

b.) negative side effects : \_\_\_\_\_

e.) to take legal action against someone :

c.) very worried and upset : \_\_\_\_\_

\_\_\_\_\_

6.) Have you heard of other cases linked to fake drugs ?

## **Reading Comprehension**

### **B.) Jigsaw Reading : Find and answer the questions on the list that correspond to your section of the article.**

1.) Who is Amir Attaran and what solution does he suggest ?

2.) What is Operation Pangea ? When was it founded ?

3.) How many pills were seized by Operation Pangea in 2011 ? How many were seized in 2015 ?

4.) What is a mass spectrometer ?

5.) What is the CD-3 ?

6.) Why are criminals so interested in the fake drug business ?

7.) How do fake drugs make diseases more resistant ?

8.) Why are some countries reluctant to enforce international regulations ?

9.) According to the text, what is the difference between counterfeit and fake drugs ?

10.) Why is it so difficult to estimate the number of deaths caused by fake drugs ?

11.) What is the FDA ?

12.) Why did Patricia Tabernero ask local volunteers to buy the drugs she needed to carry out her experiment ?

13.) What was Tabernero testing? What was successful/unsuccessful about her experiment ?

14.) Why is it so difficult to control the fake drug traffic ?

15.) How have cellphones helped fight against fake drugs ?

16.) What does SSFFC stand for ?

17.) What role does the WHO play in dealing with the fake drug problem?

18.) Why can it be dangerous to buy your medication from online pharmacies?

19.) Why hasn't the United States taken stronger action? What does the author think is necessary for the government to become more vigilant?

20.) Why does Attaran criticize the WHO?

21.) Do customs authorities always seize suspicious drugs?

## THE FAKE DRUG INDUSTRY IS EXPANDING AND WE CAN'T DO ANYTHING ABOUT IT

NEWSWEEK TECH & SCIENCE <http://europe.newsweek.com/tech-science>

BY ALEXANDRA OSSOLA ON 9/17/15

§1 In the mid-2000s, Myanmar saw between 500,000 and 600,000 cases of malaria every year. So it wasn't surprising when, in February 2005, a 23-year-old man in Myanmar came down with a fever, nausea, chills and a headache so severe he had to be taken to the local hospital. His doctors quickly determined he was, in fact, stricken with malaria. They put him on artesunate, an inexpensive anti-malarial regularly used by Myanmar's health care professionals to treat the infectious disease.

§2 Typically, a patient's symptoms will subside after a few days on the drug, but this young man grew much worse. He slipped into a coma, his kidneys showed signs of failing, and the concentration of malarial parasites in his blood grew higher. His doctors tried to give him fluids and a more powerful dose of artesunate injected into his bloodstream, but they were too late. The infection spread to his brain and killed him.

§3 Because artesunate is safe, generally well-tolerated and highly effective, hospital investigators decided to look into the case to try to understand what might have gone wrong. They were shocked to discover that the artesunate given to the patient had only 20 percent of the active ingredient required to kill the parasites. The drug, in other words, was a fake.

§4 In the small village, word spread quickly of the tragedy, and community leaders were distraught. No one in their small town had ever died from a fake drug before—at least, not that they knew of. Fearing the threat of other preventable deaths, they collected all the artesunate from the hospital's supply, went out to local pharmacies and pulled any other suspicious artesunate from the shelves, and then publicly burned it all.

§5 Tragic incidents like this happen all over the world and with almost every type of drug. In Pakistan, a poor-quality tuberculosis drug killed 100 patients at a Lahore hospital in 2012 by triggering severe adverse reactions. In 2013, officials in India discovered that 8,000 patients died over a five-year period in a remote Himalayan hospital because an antibiotic used to prevent infection after surgery had no active ingredient. And in May this year, the World Health Organization (WHO) issued a warning about expired meningitis vaccines being sold in West Africa—a devastating blow to those trying to slow a viral outbreak in the region.

§6 Every type of drug is susceptible, from anti-malarials to vaccines, antibiotics, HIV treatments and even Viagra. At their best, falsified drugs have none or too little of the active ingredient; at their worst, sellers are providing hospitals and patients with “drugs” that are life-threatening poisons.

§7 “These falsifiers are in fact murderers—they are causing death,” says Jim Herrington, executive director of the Gillings Global Gateway at the University of North Carolina's Gillings School of Public Health. “And you're more likely to get prosecuted for counterfeiting a Gucci purse than a drug.”

