

Introducing the paragraph: the topic sentence Answer Key Exercise 6

1. Science has shown an impressive growth over past decades and more scientific papers are published now than ever before. Between 1996 and 2011, over 15 million individuals authored around 25 million papers. Owing to expanding research fields, it is increasingly difficult to get studies published in high impact journals. This is important since publication quantity and associated impact factors have a considerable effect on a scientist's career perspective. Consequently, in order to get published, scientific discoveries can sometimes be exaggerated or the potential implications overstated. Indeed, overinterpretation, overstatement, and misreporting of scientific results have been frequently reported. However, the prevalence of this problem in the scientific literature is unclear. *(Taken from an Introduction, first paragraph)*

Topic: The consequences of the increase of published science.

Paragraph question: What are the consequences of the increase of published science?

2. Treating patients for a complicated Urinary Tract Infection (cUTI) with an oral antibiotic instead of an intravenous antibiotic has several advantages. Often, the administration of intravenous antibiotics provokes specific complications, such as infection of the iv-catheter. Also, it implies hospitalization or a specialized home treatment, of which complications like hospital acquired infection, functional decline, venous thrombo-embolism, falls, delirium, sleep deprivation, pressure ulcers and readmissions are well known. These risks are avoided by the use of oral antibiotics. *(Taken from an Introduction, second paragraph)*

Topic: The advantages of an oral antibiotic instead of an intravenous antibiotic in case of a cUTI.

Paragraph question: What are the advantages of treating a cUTI with an oral antibiotic instead of an intravenous antibiotic?

3. Pulmonary nerve endings were relatively insensitive to phenyl diguanide. Of 25 pulmonary nerve endings tested, only 10 were stimulated when this drug was injected into the right atrium, and in only one of these did firing exceed 2.2 impulses/s. If the latter ending is excluded, the average peak frequency of the endings stimulated was only 1.7 impulses/s. *(Taken from a Results section)*

Topic: The relative insensitivity of pulmonary nerve endings to phenyl diguanide.

Paragraph question: What evidence did we find for this relative insensitivity?

4. Few studies have examined residential exposures to agricultural pesticides and the results from these studies have been mixed. Two studies examined pesticide use in California using the California Pesticide Use Reporting database and childhood cancer incidence rates at the census block group level. These investigators found no associations between agricultural pesticides (individual, chemical groups, or toxicologic groups) and childhood ALL or gliomas, except for a positive significant association between the 90th percentile of propargite, a pesticide used to kill mites, and leukemia. In a case–control study of childhood leukemia in California, Rull et al. compared the density of applied pesticides within half a mile from the birth residence for 213 cases and 268 controls and found positive associations with pesticides categorized into chlorinated phenols, organophosphates, and triazines. However, these findings were only significant at the middle tertile of exposure and the strength of association weakened as exposure increased. (*Taken from a Discussion*)

Topic: The mixed results of the few studies that examined residential exposures to agricultural pesticides.

Paragraph question: What were these results and how were they different or mixed?

5. The spread of happiness seems to reach up to three degrees of separation, just like the spread of obesity and smoking behaviour. Hence, although the person to person effects of these outcomes tend to be quite strong, they decay well before reaching the whole network. In other words, the reach of a particular behaviour or mood cascade is not limitless. We conjecture that this phenomenon is generic. We might yet find that a “three degrees of influence rule” applies to depression, anxiety, loneliness, drinking, eating, exercise, and many other health related activities and emotional states, and that this rule restricts the effective spread of health phenomena to three degrees of separation away from the ego. (*Taken from a Discussion*)

Topic: The reach up to three degrees of the spread of happiness (a finding in this study).

Paragraph question: What does this finding mean? What are our considerations / suggestions?

