

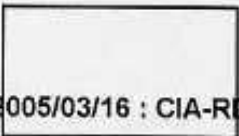
# STUDIES IN INTELLIGENCE



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*Monitoring the health  
of Very Important Patients*

## REMOTE MEDICAL DIAGNOSIS

Myles Maxfield, Robert Proper, and Sharol Case

Medical intelligence on the health of foreign leaders contributes to the over-all intelligence assessment of the stability of foreign regimes. The most obvious circumstance in which this type of medical intelligence is paramount occurs at the approaching death of the head of state, as in the case of President Pompidou of France discussed below. Less obvious but even more important are situations in which professional medical intelligence can assure our policy makers of the continued survivability and ability to function for a period of time of a foreign head of state who is expected by conventional wisdom to die or become incapable of leading his government. This would be applicable in such cases as Leonid Brezhnev of the USSR, former President Velasco of Peru and Ayub Khan of Pakistan. This type of situation is particularly important at the onset of critical negotiations such as the Camp David Summit of 1978 or the SALT II talks. It sometimes happens that the future course of a regime is influenced by the health of the heir apparent, as was the case with Asfa Wossen, heir apparent to Haile Selassie, and more currently with Edvard Kardelj in Yugoslavia, once heir apparent to President Tito. (S)

The process by which medical intelligence on the health of foreign leaders is prepared includes the collection of raw technical intelligence information (primarily from human sources), the deduction from this information of the past and current medical diagnoses (remote medical diagnosis) of the illnesses of the individual, the prediction of the future course (prognosis) of the illnesses, and finally the estimation of the individual's future ability to function in office. (U)

Remote medical diagnosis is defined as the identification of the illnesses affecting a person without the benefit of a formal medical examination. Its practice today in the United States is largely the province of the medical intelligence officer; it used to be the stock in trade of the average family doctor. It is an extraordinarily difficult task, inadequate and underdeveloped at the present time, and in some ways a lost art. In Arthur Conan Doyle's day it was a maxim that, with careful observation, by the time a patient had entered the doctor's office, greeted the doctor, crossed the room, shook hands and sat down, the physician should have a pretty good idea of the primary diagnosis in fifty percent of the cases. In modern times this type of observation has been almost entirely replaced by much more accurate and discriminating clinical laboratory tests. Who, today, would accept a diagnosis of typhoid fever, kidney failure, diabetic ketoacidosis or advanced cancer made from the distinctive odor of the patient? We shall return to a later consideration of this topic. (C)

In the broader sense, remote medical diagnosis means the identification of the illnesses afflicting a person by a physician who has not himself fully examined the patient. This process is an integral and very large part of medical education today in the form of clinical conferences, grand rounds, clinical-pathological conferences and of course case presentations in the professional medical literature. With almost every patient, in fact, the physician relies heavily upon X-ray, electrocardiographic and laboratory data obtained and sometimes even interpreted by someone else. (U)

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Remote Medical Diagnosis

The medical intelligence analyst rarely has the opportunity to examine the person about whom he is concerned and must rely to an exceptionally great extent upon the observations of others. His data are characterized by their incompleteness and by a peculiar nature and mode of expression. His data have the advantage of extending over a long period of time during which most events can be dated precisely, in contrast to a clinical history that depends upon the fallible memory of the patient. These points, as well as other, can best be illustrated through the examination of actual cases. (C)

#### Georges Pompidou

Georges Pompidou was elected to succeed Charles de Gaulle in 1969. During the 18 months prior to January 1973, he had begun to gain weight and to develop a characteristically puffy face from cortisone treatments. By February, his changed appearance had become sufficiently pronounced that it stimulated the first intelligence reporting that all was not well with Pompidou. By early June 1973, these observations had been amply confirmed; (see Figure 1) photographs revealed the classic facial changes induced by long-term, high-dose cortisone therapy, and several diagnoses including multiple myeloma had been suggested. Finished intelligence was prepared immediately stating that all of the observations were consistent with a diagnosis of multiple myeloma. (S/BUO)

In February 1974, at the request of Dr. Henry Kissinger, we prepared a definitive medical study stating in detail the reasons for believing that the French President's illness was a malignant disease of the blood-forming organs, probably malignant lymphoma, or multiple myeloma. This encompasses a constellation of closely related diseases including Waldenstrom's macroglobulinemia. (S/NFD)

In the absence of any detailed medical intelligence information, the question for remote diagnosis in this case was what disease would cause a highly competent hematologist to prescribe cortisone in massive and toxic doses, along with cobalt radiation and, later, cytotoxic agents. The picture was somewhat complicated by reports that Pompidou had arthritis, for which cortisone might also be used but not in massive, toxic doses. The diagnostic possibilities were quickly narrowed to the group of malignant lympho-proliferative disorders. The study of serial photographs and videotapes contributed significantly to the analysis. It was clear at that point that President Pompidou had an illness that would prove fatal. The appearance of repeated infections and his obviously rapidly deteriorating condition indicated a poor prognosis and he died on 2 April 1974. (S/NFD)

The case of President Pompidou serves to emphasize a number of points and questions:

- President Pompidou's illness probably was diagnosed correctly by his physicians during or shortly after the summer of 1971, although they had probably detected mild non-specific signs of illness at the time he became president. This information was not made public. To what extent should the government of a democracy withhold from its people information concerning the impending incapacity and death of the chief executive?
- While we were unable to make a specific diagnosis with certainty, we were able to narrow the possibilities to the point where it was possible to make a realistic prognosis and describe in some detail the future course of the illness.
- He was severely incapacitated with pain, extreme fatigue, repeated infections and occasional hemorrhages during the last months of his life. He became testy

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Pre-June 1969



May 1973



January 1974

The Decline of Georges Pompidou

and difficult to work with. During this period, he was clearly unable to manage the affairs of his office with his customary effectiveness. Nevertheless his mind remained clear and he continued work until the very end.

- Intelligence reporting, particularly early in his illness, was limited in detail, amount and quality, and we had to rely heavily on auxiliary analytical aids such as photographs. The symptoms of his illness and its treatment were, fortunately for us, susceptible to an analytical investigation of this nature. (S/NFD)

#### Houari Boumediene

The medical intelligence reporting on President Houari Boumediene of Algeria was of such high quality, so complete and timely (after he returned to Algiers from his hospitalization in Moscow), that the medical intelligence analysts lagged no more than a day or two and often only a few hours behind the thinking of the physicians actually treating him. The scientific and medical complexities lent fascination to this case, which was right at the frontiers of current medical knowledge. Symptoms of his terminal ailment began to appear probably in the spring of 1978 and became markedly worse during the summit meeting in Damascus, 20-24 September, precipitating a sudden return to Algiers where he was hospitalized for study. After a diagnosis of cancer of the bladder and kidney failure was made, he was flown to Moscow for more sophisticated treatment than was then available in Algiers. In Moscow it was soon realized that the case was much more complex. Boumediene was found to have an infection, a kidney disorder, a liver disorder and abnormalities in the biochemical mechanism of his blood clotting which caused him to bleed spontaneously and profusely. A tentative diagnosis of a rare disorder, disseminated intravascular coagulation, was made and therapy started that immediately made his condition worse. (S)

Treatment was therefore discontinued and broader, more penetrating diagnostic studies were initiated that revealed the presence of abnormal proteins (gamma globulins and cryoglobulins) in his blood. A diagnosis of polyclonal gammopathy was made. This is a disease in which certain white blood cells (lymphocytes) of different but closely related types multiply excessively often in response to a chronic infection and produce excessive amounts of specific abnormal serum proteins. (S)

At this time Boumediene left the hospital against his doctor's advice and returned to Algiers. He was weak and tired and in a few days developed a severe headache, lapsed into coma and was hospitalized in Algeria with a brain hemorrhage. Algerian physicians found that the abnormal serum proteins were complexes of a single type and diagnosed Waldenstrom's macroglobulinemia with IgM monoclonal gammopathy. Expert medical teams from many countries were called in and a malignant variant of this diagnosis was confirmed. Boumediene's illness had progressed much more rapidly than the classical form of Waldenstrom's syndrome. The disease and a group of closely related ones are sometimes called lymphoproliferative disorders, referring to the rapidly multiplying, sometimes malignant, lymphocytes that produce the abnormal serum protein. The abnormal serum protein damages the blood vessels, kidneys and liver, renders inactive some other substances that enable blood to clot, and destroys the antibodies that repel infection. Treatment was to no avail and he died on 27 December 1978. (S)

This case is presented as one in which a head of state previously thought by his own government and by us to be relatively young and in good health died of illness within three months. This case was so extraordinarily complex medically that medical intelligence analysis, to be satisfactory, had to have available the highest quality of very detailed and timely raw medical intelligence reporting. There is no way that any form of intelligence collection other than expert human reporting could have been adequate to this task. (S)

#### Leonid Brezhnev

The case of Leonid Brezhnev presents a somewhat different view of VIP medical intelligence. At no single time did we ever have intelligence reporting even remotely as complete and detailed as we have had on the conditions of more accessible world leaders. On many occasions we have had to deal with a considerable amount of spurious medical reporting generated by imperfect observation, false rumors or perhaps by malicious intent. But we have been collecting factual medical data on Brezhnev in some volume for over 20 years. It is possible, with careful medical analysis, to sort these data out, piece them together, and construct a valid and fairly detailed picture of his current medical status. (S)

Brezhnev had a heart attack around 1960. This was of major concern, especially in view of his hypertension and his reputation for heavy smoking and drinking; it may have accounted for his collapse during the Cierna meeting with Alexander Dubcek before the invasion of Czechoslovakia in 1968. In 1973 a somewhat fortuitous but very astute personal observation by a medical analyst indicated that he had an intermittent cardiac arrhythmia and that his teeth were in such poor shape that his face was distorted and he could eat only with difficulty. His cardiac pacemaker was installed not long afterward. (S)

This remote observation later helped the medical analysts to avoid two major pitfalls. It was possible to discount a flurry of reports that he had cancer of the mouth. The second pitfall was more difficult to identify. He was reported to have had a stroke, a not unlikely concomitant of hypertension. It was clear from photographs that one side of his face drooped, that one eyelid sagged on occasion, that his speech was slurred and that he had difficulty moving one arm. Careful analysis showed the facial droop and his slurring of words to be due to his dental problems, his drooping eyelid to have occurred for many years and the limitation of movement of his arm to be due to bursitis. (S)

These are but illustrations of the value of remote diagnosis in elucidating some of Brezhnev's medical problems; it is not intended to be a complete review of his health. Remote diagnosis often produces entirely valid observations but ones that are not normally regarded as symptoms of disease and are therefore difficult to interpret. (S/NFD)

#### Menachem Begin

Prime Minister Menachem Begin of Israel had a myocardial infarction in March of 1977. In May and again in September 1977, he had acute attacks of pericarditis (inflammation of the membrane surrounding his heart) that probably represented an allergic reaction to his earlier heart attack. His health has remained quite good since that time although his personality and his medical history of diabetes render him somewhat susceptible to a second and more serious myocardial infarction. His prognosis, though somewhat guarded, is quite good. (S)

We include this very brief outline of Begin's medical history to point out that essentially all of the information available to us has been officially released by the Government of Israel. Medical analysis shows the information to be internally consistent. Still, one must retain some suspicion that the information may be incomplete or inaccurate, especially in view of the fact that only at her death was it revealed that Golda Meir, one of Begin's predecessors, had been fighting malignant lymphoma (a form of cancer) for more than 12 years. We had been entirely unaware that she had this lethal disease.

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#### Sources of Medical Intelligence

Medical intelligence information is derived almost entirely from human reporting, although COMINT makes an occasional valuable contribution. The vast majority of valuable reports are classified. Unclassified reporting such as press ticker, newspapers, radio broadcasts and periodicals are often helpful but are almost devoid of essential detail and may be conflicting and confusing to the medical analyst. Disinformation represents an occasional challenge to the medical analyst but is usually not laid on with skill and depth. (S)

A look into the future prompts a return to the consideration of remote medical diagnosis in the strict sense of determining a person's illnesses by observation from a distance. Whenever possible the medical analyst himself should observe the foreign VIP in person. Direct observation has its primary utility in judging the degree of advancement of a known illness or the extent of disability that it produces. It is also helpful in forming a baseline for future observation and in understanding the characteristics peculiar to that individual that could otherwise be misleading. The case of Brezhnev described above is an outstanding example of the value of direct observation by a medical analyst. (S)

Photography is widely used as a source of medical intelligence but has not yet been exploited to the extent that it should be. Black-and-white still photography is most common. It has the advantages of great detail in each picture and the possibility of comparing many photographs taken over a long time period, as in the case of Pompidou. The usefulness of black and white photography would be increased if photos were obtained in more informal settings, particularly such sporting occasions as golf, hunting, and swimming when attire and postures are more revealing of the subject's physical condition. Photos showing smiles, frowns and similarly pronounced facial expressions are also valuable. Good color photography produces a wealth of

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*Remote Medical Diagnosis*

additional information but this is generally limited by deficiencies in reproducing true color and in bringing out specific shades in quantitative form. The difficulty of identifying jaundice from a color photograph is an example. Moving pictures and video tapes are useful in determining limitations of motion, unusual motions like tremors or limping, uncertain motions and unusual velocity or extent of motion. Color motion pictures probably have little additional to offer. Stereoscopic photography and holography produce three dimensional reproductions that should prove very valuable in selected cases. Infrared photography can be almost diagnostic in its specificity. Exploitation of other regions of the electromagnetic spectrum is promising but in its infancy. (S)

Voice analysis has been demonstrated to be able to detect the past occurrence of a stroke that is not now apparent on direct observation. Changes in one's voice occur in myxedema and in Parkinson's syndrome and of course with a vocal chord tumor and with respiratory infections. Handwriting analysis also can detect the characteristic micrographia of Parkinson's syndrome. The extensive research required to develop these and other methods of remote medical diagnosis is devoted in part to instrumentation but much more to the analysis of the measurements to determine those characteristic of specific illnesses. There is much to be done to perfect the science and the art of remote medical diagnosis. This has already begun to become urgent as opportunities for human collection become more restricted. (S)

It is not realistic to expect that diagnoses made exclusively from remote observation can ever replace diagnoses made from detailed first-hand medical information collected from human sources. Modern medicine, with its growing array of penetrating physical diagnostic tools such as X-ray, tomography, ultrasound, endoscopy and biochemical tests, is capable of discriminating and following the progress of literally thousands of distinct disease entities that were lumped into relatively few disease groups in the days of Dr. Conan Doyle. Although certain diseases, notably endocrinopathies and some neurological disorders, can often be diagnosed from the appearance and behavior of the affected individual alone, the greatest value of remote observation is in following the progress of a disease whose nature is already known from human collection. (U)

It should be noted that outside of the USSR, few foreign intelligence organizations claim to have any competence in the area of remote diagnosis of foreign statesmen; expertise in this area is severely limited by the constraints discussed above. The importance of evaluating medical incapacity in chiefs of state is obvious, yet the almost total reliance on human collection makes such analyses as difficult as they are intriguing. Despite these constraints, the challenge has been accepted and is being met. (S)

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*Intelligence Vignette*

ON THE NATURE OF INTELLIGENCE

Modern intelligence has to do with the painstaking collection and analysis of fact, exercise of judgment, and clear and quick presentation. It is not simply what serious journalists would always produce if they had time; it is something more rigorous, continuous, and above all operational—that is to say related to something that somebody wants to do or may be forced to do.

*The Economist*, 1 October 1966

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