

R/B, 2, 64, 17 (61) +

6 September 1945

MEMORANDUM

TO: _____

Research and Development Branch

FROM: _____

Special Assistants Division, R&D

SUBJECT: Final Summary Reports

1. Herewith attached are the following final summary reports submitted from Special Assistants Division, Research and Development Branch:

- a) "K" Tablets
- b) T.D.

Special Assistants Div.
Research and Development Branch

SPECIAL ASSISTANTS DIVISION, R&D

FINAL SUMMARY REPORT OF K TABLET

5 September 1945

INTRODUCTION

Authorization: There is no letter of authorization in the Special Assistants Division files but it is understood from former Special Assistants Division that such authorization was given orally by former Research and Development Branch. Special Assistants Division was to cooperate with the Medical Branch in giving advice and doing such experimental work as was possible within the Special Assistants Division.

Experimental work was done at _____ and in the laboratories of Special Assistants Division.

Purpose: A small quickly soluble pellet was desired which would cause rapid unconsciousness ("Knock-out") of a victim but there should be no possibility of death being caused.

MATERIALS AND EXPERIMENTAL METHODS

The choice of suitable "knock-out" material was rather limited because almost all drugs, if given in sufficient dosages, are fatal. The difference between the "knock-out" dose and the lethal dose depends a great deal upon the individual subject so that a knock out dose for one person might be a lethal dose for another. Therefore, materials had to be picked which had a relatively large differences between "knock-out" dosages and lethal dosages. Chloral hydrate was one suitable material from this point of view.

However, from the point of view of making suitable pellets, chloral hydrate was not satisfactory because at ordinary temperatures it is a liquid. Therefore, a suitable water soluble binder had to be sought. The binder chosen was Carbowax 4000, produced by Carbide and Carbon Chemical Company, New York, New York.

Here again another difficulty arose--the pellet needed to produce the two requirements above became a wafer.

Nevertheless, a suitable wafer contained the following proportions:

Chloral hydrate	2.5 grams
Carbowax 4000	7.5 grams

The second most suitable material from the dosage point of view but the first choice as far as binder and size were concerned was a mixture of morphine

and hyoscine with a glucose binder. These materials were to be in the proportion of:

Morphine tartrate	0.75 grains
Hyoscine hydrobromide	0.20 grains

and sufficient glucose syrup to bind the materials.

Experimental Methods: All physiological data was obtained from standard pharmacological books with the comments of the Medical Branch.

In the case of the chloral hydrate wafer, the Carbowax 4000 is first melted and the chloral hydrate dissolved therein. After hardening, the mixture may be formed into a wafer in a suitable pellet press.

In the case of the morphine and hyocine, a dry mixture is prepared, moistened with the least possible amount of glucose syrup and formed into a pill by means of a suitable pellet press.

RESULTS

The chloral hydrate wafer will dissolve in two to three minutes in water or a water-alcohol mixture. Because of its bitter taste, it is suggested that a flavored beverage be used such as tea, coffee, whiskey or other alcoholic drinks. The amount of chloral hydrate used is well below the ten gram lethal amount even for the most sensitive victim. The effect would take place in ten to fifteen minutes, reach its effect in one hour, and wear off in five to ten hours. During this time a man could be roused but not easily.

The morphine-hyoscine mixture will also be dispersed in the same liquids in about the same time and should be used in the same manner. The effect will start in about thirty minutes and last several hours. The pellet does not produce loss of sensation but reduces sensation and greatly diminishes the power of attention and the power of memory.

The difference between the "knock-out" dose and lethal dose in this latter case is not as great as that of chloral hydrate. In the case of chloral hydrate the factor of safety is about four to one, whereas in the morphine-hyoscine mixture this factor is about two to one.

CONCLUSIONS

Although no "K" tablets reached the field, the correct proportions and procedures have been investigated, so that at some future date, suitable pellets could be produced.

RECOMMENDATIONS

Some law enforcement agencies might have a use for "K" tablets.

Special Assistants Division
Research and Development Branch

SPECIAL ASSISTANTS DIVISION, R&D

FINAL SUMMARY REPORT OF T. D.

6 September 1945

INTRODUCTION

Authorization: This project was initiated by a memorandum from _____
Research and Development Branch to _____
Medical Branch, dated 19 January 1945, entitled T. D. It
was understood that Special Assistants Division would offer any advice or
laboratory facilities desired.

Purpose: The material to be used was to produce uninhibited truthfulness
in an interrogated person.

MATERIALS AND EXPERIMENTAL METHODS

Materials: The active material selected for the physiological and psy-
chological test was marihuana acetate in a purified form. This substance was
made into a 50% by weight alcohol solution.

Experimental Methods: When the solution was prepared varying amounts
were incorporated into tobacco for making cigarettes and also were dissolved in
drinking water. The amounts involved varied from 1/100 cc to 1/400 cc of the
alcohol solution. The T.D. was administered without the victim being aware
of the procedure by getting him to smoke a cigarette or drink a glass of water.

RESULTS

Reactions of the victims to the interrogation procedure are given in the
attached copy of a letter to The Director, Room 124, Administration Building
from _____ dated 31 August 1945, on
the subject of T.D.

CONCLUSIONS

Indications are that uninhibited truthfulness can not be obtained by
this method.

RECOMMENDATIONS

None

Special Assistants Division
Research and Development Branch