

Codified Protocol for Systematic Data Collection on Burns

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ABSTRACT

Details about the origin, content, and subsequent development of the Codified Protocol for the Collection of Data on Burns are presented. Reference is made for its progressive development, which began with only 3 groups of data until it reached the current protocol and which now consists of 14 groups of data. Because it was created in Argentina, the original protocol is in Spanish language, but some of the data has been translated to English. We look forward to its total translation in the near future, to allow its use in other countries.

KEY WORDS: *Burn injuries, Diagnosis, Medical records, Treatment*

INTRODUCTION

Jointly with Drs. Santiago Santelis, Mehmet Haberal, and Mr. Gerardo Elam, we have published an article titled “Electronic Protocol for Systematic Data Collection on Burn Patients, A Proposal to Standardize Burn Patient Data.”¹ In this article, we reported the creation of a new system to collect data on burns and its application to a special clinical record designed for this objective. Here, new information about the protocol is provided, including its origin and content and how it was created.

From the Benaim Burn Foundation

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Those who are interested in receiving the complete protocol, please send an e-mail to: fbenaim@fibertel.com.ar or info@fundacionbenaim.org.ar.

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ANTECEDENTS

In 1950,^{2,3} I was the chief of the Plastic Surgery Section at the General Surgery Service headed by Prof. Arnaldo Yodice, at the “Cosme Argerich Hospital” in Buenos Aires, Argentina; it was there where I started the treatment of burn patients. I took pictures of them and their treatments, and I had to archive the slides with those pictures. For this reason, I needed to create a simple and practical way to retrieve data, and I had the idea to use a code with a combination of letters and numbers for their identification.

The first code had only 3 data collections points (“Topography,” “Diagnostic,” and “Treatment”) with 10 divisions for each one. The code was composed of a letter (the first letter of each data group) and numbers for their divisions. An example is shown for “Topography” and its divisions in Table 1. Each division also has subdivisions; for example, some subdivisions for “Face” are shown in Table 2. The same format was employed for the other data groups (“Diagnostic” and “Treatment”).

TABLE 1. Topography

Data	Code
Topography	T
Head	T.1
Face	T.2
Neck	T.3
Thorax	T.4
Abdomen	T.5
Lumbosacral cocci	T.6
Perineum	T.7
Genitals	T.8
Upper extremity	T.9
Lower extremity	T.10

TABLE 2. Subdivision Examples

Data	Code
Front	T.2.1
Nose	T.2.2
Lip	T.2.3

In 1956, I was elected Director of the National Burns and Plastic Surgery Institute in Buenos Aires, and, in 1997, we inaugurated the Centro de Excelencia Para la Atención de Quemaduras (Excellence Center for Treatment of Burns)⁴, and I took those opportunities to improve the code, adding other data. To this end, 14 data groups were included, creating the “Protocol for the Systematic Collection of Data on Burns.”

ACTUAL PROTOCOL

For the identification of this Protocol, I have given it the acronym “P.Re.S.Da.Q.” (Protocolo Para la Recolección Sistemática de Datos sobre Quemaduras or Protocol for Systematic Data Collection on Burns) with the initial letters in Spanish.

Because the Protocol was created in Spanish language, I translated it to English for each word to facilitate its understanding (Table 3). The 14 data collection points are shown

TABLE 3. P.Re.S.Da.Q.

Spanish	Code	English
Protocolo	P	Protocol
Recolección	Re	Collection
Sistemática	S	Systematic
Datos	Da	Data
Quemaduras	Q	Burns

TABLE 4. Groups of Data

Data	Code	Spanish
Personal	P	Personal
Event	S	Suceso
Translation	Tras	Traslado
Organism	Or	Organismo
Patient	Pac	Paciente
Injury	L	Lesión
Complementary examinations	ExC	Exámenes Complementarios
Treatments	Tr	Tratamientos
Complications	Co	Complicaciones
Evolution	Evol	Evolución
Discharge	Eg	Egreso
Derivation	Der	Derivación
Epicrisis	Ep	Epicrisis
Information	Inf	Informes

in Table 4. These 14 data points are divided into 2 sections: fixed (Table 5) and variable (Table 6).

COMBINATION OF DATA

To use the Protocol, if one wants to identify a disease, one can combine the codes as explained here. For example, pneumonia would be coded as follows: (1) Topography (anatomic region) (T); (2) Organism = lung (Or.Ap.3.5); and (3) Diagnostic = inflammation (D.5). If it is an external injury, we combine “Topography” and “Diagnostic.” For example, a leg injury would be coded as (1) Topography (anatomic region) = leg (T:10.6) and (2) Diagnostic = injury (D.2). With the same system, it is possible to identify any internal or external pathology.

UTILITY OF THE SYSTEM

When we want to plan a research work (clinical or experimental), we need to prepare a protocol. This proposed protocol is useful for any work because it offers data collected systematically to allow comparing similar data. Furthermore, it may be used to archive any data related to burns and can be consulted in an easy way.

CONCLUSIONS

Here, more details of the “Codified Protocol to Systematic Collection of Data on Burns” are presented in its origin

TABLE 5. Fixed Data

Spanish	Code	English
Personal	P	Personal
Suceso	S	Event
Traslado	Tr	Translation
Organismo	Or	Organism
Paciente	Pac	Patient
Lesión	L	Injury
Egreso	Egr	Discharge
Informes	Inf	Records

TABLE 6. Variable Data

Spanish	Code	English
Exámenes Complementarios	ExCo	Complementary examinations
Tratamientos	Tr	Treatments
Complicaciones	Co	Complications
Evolución	Ev	Evolution

in Spanish language, with the possibility to translate it to English. The utility of the Protocol is highlighted and recommended for research studies. The Protocol may also be used for the orderly archiving of burn data.

REFERENCES

1. Santelis S, Elam G, Haberal M, Benaim F. Electronic protocol for systematic data collection on burn patients. A proposal to standardize burn patients data. *Burn Care Prevent J.* 2022;2(3):90-97.
2. Benaim F. *Fisiopatología y Tratamiento de las Quemaduras. Resultados obtenidos con el Injerto de piel.* Doctoral thesis. Medical School, Buenos Aires University; 1952.
3. Benaim F. *65 años dedicados a la Medicina del Quemado.* O.S.D.E. Buenos Aires; 2009.
4. Benaim F. Benaim Burn Foundation in Argentina will celebrate this year its 40th anniversary. *Burn Care Prevent J.* 2021;1(1):2-9.
5. Benaim F. Contribution to the identification of burns according to depth and severity (global and regional) and to formulation of presumptive and definitive diagnosis and prognosis. *Burn Care Prevent.* 2021;1(4):111-117.
6. Benaim F. Propuesta de un Protocolo Codificado para la recolección de datos sobre quemaduras e Historia Clínica Informatizada. Primera parte: Protocolo Codificado. *Revista Argentina de Quemaduras.* 2022;32(3):8-12.
7. Benaim F, Santelis S. Historia Clínica Informatizada. *Revista Argentina de Quemaduras.* 2022;32(3)13-16.