



DETERMINING THE FULFILLMENT OF THE COLD CHAIN

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BACKGROUND

- The effectiveness of vaccination programs depends on the correct handling and maintenance of the vaccine.
- The practice of a good vaccination starts from the storage of vaccines
- The cold chain consists in a set of logistic-type processes to supply adequate temperature to the vaccine to guarantee that the product is in optimal conditions for its application
- When the cold chain is not complied aspects such as the stability, efficacy and safety of the vaccines are compromised.
- To improve the fulfillment of the cold chain is necessary to identify where the errors are, and where things are working well, that's the first step of improvement.

PROJECT AIM

Determine the compliance of the cold chain from local storage in the UMF No. 8, Querétaro, Qro., Mexico, as well as the area of opportunity of this.

PROJECT DESIGN

Epidemiological design → Transversal descriptive
Population → Refrigerators, thermos and nursing staff that applies vaccines
Population size → The universe; 5 refrigerators, 20 thermos, 20 nurses to evaluate
Refrigerator. We evaluate aspects such as separation, type of door, existence of digital temperature microprocessor, presence and operation of logger
Thermos. Handle presence, surface, refrigerant packages, internal temperature measurement device, daily maintenance; and finally, if the technique is correct for the preparation and application of the vaccine and if you verify the correct vaccine in the correct patient.

RESULTS

Variable	Percentage	Inferior	Superior	N
Temperature	100.000	100.0	100.0	5
Door	80.000	44.9	115.1	5
Microprocessor	0.00	-	-	5
Separation	100.000	100.0	100.0	5
Alarm	0.00	-	-	5
Key	0.00	-	-	5
Maintenance	100	100.0	100.0	5
Logger	0.00	-	-	5

Variable	Percentage	Inferior	Superior	N
Top with watertight seal	100.000	100.0	100.0	16
Surface	100.000	100.0	100.0	16
Integrated handle	100.000	100.0	100.0	16
Refrigerant packages	100.000	100.0	100.0	16
Internal temperature measuring device	100.000	100.0	100.0	16

Variable	Percentage	Inferior	Superior	N
Adequate technique	62.000	38.2	85.8	16
Adequate vaccine and patient	100.000	100.0	100.0	16

CONCLUSION

We can conclude that 71.4% of the cold chain was fulfilled. There being more failures in structural as well as technical issues, the structural issues are more related to administrative, while the technique is related to the staff, therefore we suggest a new intervention project because we already know where the mistakes are and where to intervene.

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