

**GLOBAL GRANT**  
**INCUBATORS FOR THE NEONATAL ICU**  
**HOSPITAL UNIVERSITÁRIO DE MARINGÁ**



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## 1. IDENTIFICATION OF THE COMMUNITY NEED

During the 2020-21 Rotary year we were conducting a needs analysis for a global project in our region and during strategic planning, being aligned with the goals of Rotary International President Shekhar Mehta invited us to think about women and girls .

During the pandemic period, it was common to see news related to the increase in the number of premature babies, mainly because of Covid.

News:



*“Covid-19 can increase the risk of premature birth”*

<https://revistacrescer.globo.com/Gravidez/noticia/2020/11/covid-19-pode-aumentar-riscos-de-parto-prematuro-diz-cdc.html>



*“Covid near birth may increase risk of premature and stillbirth, study says”*

<https://www.bbc.com/portuguese/geral-57212183>

Início > Pandemia

## Óbitos maternos ligados à Covid aumentam e número de bebês prematuros triplica em Campina Grande

Audiência entre Promotoria de Justiça e Instituto de Saúde Elpídio de Almeida discutiu medidas de contenção dos casos

Redação

02/06/2021 09:00



*“Covid-related maternal deaths increase and the number of premature babies triples in Campina Grande”*

<https://portalcorreoio.com.br/obitos-maternos-ligados-a-covid-aumentam-e-numero-de-bebes-prematuros-triplica-em-campina-grande/>

We then started to collect a little more technical data on infant mortality in our city and region:

Between 2015 and 2019, there were 711 deaths from preventable causes in children under 5 years of age in the 15th Health Region, which covers Maringá. Of these, Maringá represents 566 (79.6%).

Of these, 474 were less than 28 days old, that is, newborns.

SOURCE: DATASUS

## 2. IDENTIFICATION OF THE INSTITUTION TO BE SERVED

We then started to collect data from institutions with Neonatal ICUs in our city to identify which unit would be most in need of our intervention.

In our region, there are 3 hospitals that are a reference in maternity work:

- Santa Casa de Maringá;
- University Hospital of Londrina;
- University Hospital of Maringá.

Santa Casa de Maringá is a private institution that in some cases serves patients through the SUS (free care), however, mostly it serves patients from private plans. It has a large Neonatal ICU with high-tech equipment, one of the best equipped Neonatal ICUs in the region. It has 18 high-performance “FANEM Duetto 2386” incubators, which cost around R\$119,000 each.

The University Hospital of Londrina has 10 Neonatal ICU beds, 5 heated cribs for this sector, 5 of which are “FANEM Duetto 2386”. It is an institution that may also receive attention in the future.

The University Hospital of Maringá has 10 Neonatal ICU beds, and no heated cribs. In the initial conversations, we identified that they, in addition to having a smaller number of equipment, were told that many were discontinued by the supplier.

Therefore, due to these data, the institution chosen to receive a more detailed evaluation was the University Hospital of Maringá.

### 3. IDENTIFICATION OF NEEDS IN THE INSTITUTION

On June 16, 2021, we held a face-to-face meeting at the University Hospital of Maringá:



REUNIÃO COM ROTARY CLUB – Auditório HUM  
Maringá, 16 de junho de 2021

Nome	Cargo	Instituição
Márcia R. Momeno N. Serruina	Coordenadora Hemocentro Hemocentro	
Meliana J. de Paula	Assessoria Jurídica	HUM
Renata Braga da Silva Valim	Assessoria Administrativa	HUM
Simone Costa Mazzola	Assessoria Jurídica	HUM
Deffay Miranda	Assessor	FEU
Daniela Alves Matsumoto	Assessoria Médica	HUM
Renato Coneglian	Rotary ACIM	ROTARY ACIM
Roberto Guimarães Gallida Rocha	Rotary ACIM	ROTARY ACIM
Amílcar Rocha	AC ACIM	ROTARY
Silvany Amaral	DC MGACIM	ROTARY



At this meeting, we were able to learn a little more about the institution's infrastructure as well as better understand how it is managed and talked more about the Neonatal ICU.



We identified that in fact the HUM has an outdated inventory of incubators:

Tipo de Tecnologia	Categoria	Localização	Marc	Modelo	Número de Sé	Nosso N° de Patrimô	Descontinuada?
INCUBADORA DE RECEM NASCIDO	ENGENHARIA CLÍNICA	UTI NEONATAL	FANEM	C186 TS	CC-1851	62869 FUEM	SIM
INCUBADORA DE RECEM NASCIDO	ENGENHARIA CLÍNICA	UTI NEONATAL	FANEM	C186 TS	CC-7534		SIM
INCUBADORA DE RECEM NASCIDO	ENGENHARIA CLÍNICA	UTI NEONATAL	FANEM	C186 TS	CC-7535		SIM
INCUBADORA DE RECEM NASCIDO	ENGENHARIA CLÍNICA	UTI NEONATAL	FANEM	IT 158 TS	BQ-0053	089328 UEM	SIM
INCUBADORA DE RECEM NASCIDO	ENGENHARIA CLÍNICA	UTI NEONATAL	FANEM	VISION 2186	CJ-1579	342321	SIM
INCUBADORA DE RECEM NASCIDO	ENGENHARIA CLÍNICA	UTI NEONATAL	FANEM	VISION 2186	CJ-2621	363710 ISEP	SIM
INCUBADORA DE RECEM NASCIDO	ENGENHARIA CLÍNICA	UTI NEONATAL	FANEM	VISION 2186	CJ-2828	365938 ISEPR	SIM
INCUBADORA DE RECEM NASCIDO	ENGENHARIA CLÍNICA	UTI NEONATAL	FANEM	VISION 2186	CJ-1585	342320 ISEP	SIM
INCUBADORA DE RECEM NASCIDO	ENGENHARIA CLÍNICA	UTI NEONATAL	FANEM	VISION 2186	CJ-2827	365939 ISEP	SIM
INCUBADORA DE RECEM NASCIDO	ENGENHARIA CLÍNICA	UTI NEONATAL	FANEM	VISION 2186	CJ-2622	363708 ISEP	SIM
INCUBADORA DE RECEM NASCIDO	ENGENHARIA CLÍNICA	UTI NEONATAL	FANEM	VISION 2286	CK-3600	100 002 124 812 EPR	NÃO
INCUBADORA DE RECEM NASCIDO	ENGENHARIA CLÍNICA	UTI NEONATAL	FANEM	VISION 2286	CK-3602	100 002 124 811 EPR	NÃO

The last column refers to the discontinuity of the incubator, as the manufacturer has notified that these models are obsolete:

Prezados:

Tendo em vista a obsolescência tecnológica de produto, a obsolescência de fabricação de componentes eletro-eletrônicos e as regulamentações ambientais para certos tipos de componentes, informamos através desta que os seguintes equipamentos abaixo listados tiveram sua linha de produção finalizada em **Julho de 2007**.

Produto	Início de Produção	Serie SN	Fim de Produção	Serie SN	Reposição Técnica
Incubadora Neonatal Vision 2186 G2	Maio 2004	Início CJ1492	Julho 2007	Até CJ3161	Incubadora Neonatal Vision 2286
Incubadora Neonatal C186	Julho 1997	Início CA0001	Julho 2007	Até CA8158	Incubadora Neonatal 1186

O suprimento de peças de reposição e itens de consumo será mantido pelo período de 5 anos atendendo nossa interpretação do código de defesa do consumidor.

Por favor, mantenham seus representantes e autorizadas cientes,

*"In view of the technological obsolescence of the product, the obsolescence of manufacturing of electro-electronic components and the environmental regulations for certain types of components, we hereby inform that the following equipment listed below had its production line completed in July 2007."*

*"The supply of spare parts and consumable items will be maintained for a period of 5 years in compliance with our interpretation of the consumer protection code. Please keep your representatives and authorized representatives aware"*

The use of adequate technology to provide heat and humidity, in the case of incubators, is a determining factor in the survival of sick NBs, in the case of extreme preterm infants, the supply of heat/humidity until it is able to reduce the trans-epidermal loss of water and solutes is essential .

Surgical newborns need adequate thermal support in the postoperative period, in order to prevent hypothermia and its serious complications.

So, now the need assessment was clearer, we needed to define the project scope. As these are high-cost machines, we ask you to budget for this equipment.

## 4. BUDGET REQUEST

We asked the engineering team to budget for the renewal of these items:

### Incubadora 1186C

Data: 17 de junho de 2021  
Cotação nº 5.394

#### ESPECIFICAÇÕES

Incubadora para Recém-Nascidos  
1186 C | 127V - C/ Servo O2

Item: 1  
Quantidade: 4

Valor Unitário  
R\$ 38.750,00



Imagem meramente ilustrativa



### Incubadora Vision 2286

Data: 17 de junho de 2021  
Cotação nº 5.395

#### ESPECIFICAÇÕES

Incubadora Neonatal Vision®  
Advanced 2286 | 127V - Mono - c/  
Servo O2

Item: 1  
Quantidade: 3



Imagem meramente ilustrativa



### Duetto 2386

Data: 21 de junho de 2021  
Cotação nº 5.448

#### ESPECIFICAÇÕES

Unidade Híbrida de Cuidado  
Intensivo Neonatal - Duetto® 2386

Item: 1  
Quantidade: 1

Valor Unitário  
R\$ 119.998,00



Imagem meramente ilustrativa



## Berço Aquecido Ampla 2085



Data: 17 de junho de 2021  
Cotação nº 5.394

Valor Unitário

R\$ 20.545,00

Unidade de Cuidado Intensivo  
Ampla® 2085 | LED 3TH - 127V

Item: 2  
Quantidade: 3



Imagem meramente ilustrativa

UNIDADE DE CUIDADO INTENSIVO BERÇO AQUECIDO MARCA FANEM® MODELO AMPLA® 2085 - LED 3TH

**Dados Técnicos**

Voltagem do Equipamento: 127V

Dimensões:

Produto registrado na ANVISA: 10.224.620.067

Referência: 004.200.700



### 5. DEFINITION OF THE PROJECT SCOPE

The institution's SWOT matrix already predicted this equipment weakness, even since 2016 they have tried to renew the Neonatal ICU's technological park.

Our project, therefore, was defined by the renovation of these equipments. With the budget made, in alignment with the head of the Neonatal ICU, it was understood that a viable and impactful solution would be to purchase:

- 3 units of the 1186C Newborn Incubator
- 1 unit of the Neonatal Intensive Care Hybrid Incubator – Duetto 2386
- 1 unit of the 2085 Ample Heated Cradle

Item	Preço/price	Qtd	Total
Inc. 1186C	R\$ 38,750.00	3	R\$ 116,250.00
Inc. Duetto 2386	R\$ 119,998.00	1	R\$ 119,998.00
Ber.Aq. 2085	R\$ 20,545.00	1	R\$ 20,545.00
TOTAL			R\$ 256,793.00

~ 50.000USD.