**Vitamin A Supplementation in India:**
*A closer look at the DEVTA trial*

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**Introduction**
- Malnourishment is astonishingly prevalent in developing countries and vitamin supplementation could be a cost-effective solution to this problem.
- Vitamin A has been linked closely to immune development in children aged 0-6.
- Previous studies have also linked Vitamin A with lower rates of mortality in under five year olds.
- The DEVTA trial (published in 2013) was the largest clinical trial conducted on the topic. It found inconclusive results in Uttar Pradesh, India, discouraging medical personnel from using Vitamin A widely.

**Objective of the Trip**
My trip to Lucknow, India was to explore the healthcare realities where this study was conducted, and learn more about why this location was the only study of its kind to not find a positive association with Vitamin A and decreasing rates of under five mortality rates.

**Method**
- I worked closely with Professor Shally Awasthi (the main pediatrician in charge of the DEVTA trial) learning about the many active trials being conducted at KGMU including one on radiological pneumonia surveillance, a bivalent oral polio vaccine trial, and educational programs for local parents and healthcare workers.

**Important Observations**
- The DEVTA trial had a staff of 18 Village-to-village riders (VVRs), with each tasked to cover 5 villages per day/100 per month = drastically understaffed for the amount of study subjects!
- Every single data point was collected by hand by Anganwadi workers (local teachers of small children not medical personnel).
- Data on deaths under age 10 were collected, but did not specifically say if they received the supplement and deworming treatment. Cause of death was usually determined by local, untrained parents or residents. Death validation processes were in place to lessen the risk of mistake on this front, but are not 100% reliable.
- While traveling from village to village, visiting not only ASHA residencies, but also primary and community health centers, I noticed the issue of local practitioners not actually following study protocol, as was evident through checking up on other studies.
- There is a huge need for a standardized protocol for treatment and how to classify disease in these various levels of healthcare from the local level to large government hospitals.
- Issues such as road conditions and distance from KGMU could have played major roles in access to medications and inhibited the staff’s ability to check up on them.

**Discussion**
- If access to computerized files was a reality for this study, it could have been much more cost-effective and the results much more accurate!
- More funding to hire more workers, hold longer orientations for local data collection officers, and create better facilitation of data would be extremely beneficial to a more successful study.

**Looking Ahead**
- I will be taking a closer look at the actual data from the study by conducting another data analysis with this new knowledge of logistics of the study as a resource.
- I will conduct analysis on distance and the potential of workers not following protocol and their effect on the data.
- I would also like to explore why Vitamin A is being used for children with the measles vaccine but not for the general public.

**Conclusion**
- It seems as though there should be further studies conducted possibly on a smaller, more manageable scale because in many other circumstances vitamin A seems to be beneficial.

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