



A Distance Blended Learning Program to Upgrade the Clinical Competence of District Non-Doctor Anesthesia Providers in Nepal

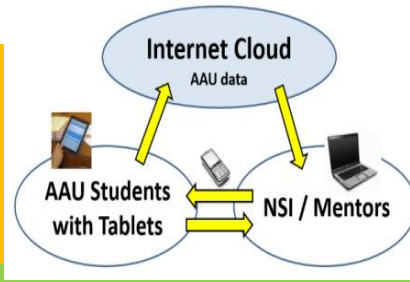


ENHANCING RURAL HEALTH CARE

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Introduction:

Across Nepal, anesthesia at district level is provided by non-doctor anesthesia providers (anesthesia assistants-AA)¹. Nepal's Government recognized the need to sustain competence with continuous professional development and to upgrade 6-month trained working AAs to professional equivalence with the new national standard of 12-month training. For this reason an innovative distance blended learning², competency-based, upgrade course was developed and conducted in 2014-15.



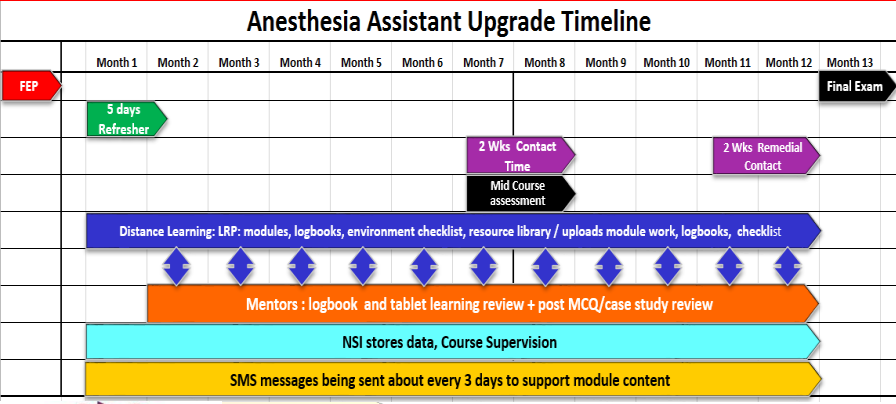
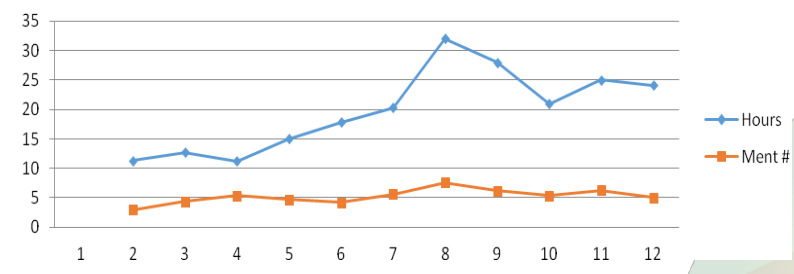
Method:

The course content was developed by a team of Nepali and Overseas AA trainer over a period of 18 months. Fourteen AAs from different hospital across Nepal were enrolled. They all were given an Acer tablet preloaded with the course, that contains 168 new case studies, Pre and Post tests, Video lectures, matching exercises, and a resource library. Clinical skills were upgraded by direct midcourse clinical contact. Quantitative and qualitative course assessments were done after every module and at the end of the course.

Module	PCQs	MCQs	Qualitative Exams	Module Score
1. Introduction to Anesthesia	74.9	97.1	Na	93.6
2. Pre-anesthesia Checklist	87.7	100	86.2	89.9
3. Preparation for Anesthesia	100	97.5	87.1	90.0
4. Drugs in Anesthesia	88.6	91.4	85.7	83.8
5. Ketamine	91.4	94.3	87.9	87.9
6. Spinal and OB	92.3	94.6	86.6	86.7
7. Intubation	97.1	93.6	87.9	83.6
8. GA and Recovery	93.8	94.1	88.8	85.3
9. Intraoperative Emergencies	90	91.5	87.1	87.9
10. The Seriously Ill Patient	84.3	88.6	88.6	87.1
11. Pediatric Anesthesia	73.3	90.8	85.9	86.4
12. CPR and Trauma	80	87.3	87.7	86.4
Average	87.8	93.4	87.2	87.4

Results:

All AAs remained working at their hospitals throughout the course and there were no significant tablet problems inhibiting course completion. Challenges were the national IT infrastructure making data synchronization difficult and the lack of clinical exposure at some AA's hospitals. Thirteen AAs attended for final examination and twelve passed.



Anesthesia Assistant Upgrade-Blended Distance Course
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References:

- Ross O et al. Anesthesia Assistant Follow up and enhancement programme, Nepal 2011 – 2012(Internet). Nepal: Nick Simon Institute; 2012.
- Deschacht, N. & Goeman, G. The effect of blended learning on course persistence and performance of adult learners: A difference-in-differences analysis. Computers & Education 2015;87: 83-89.

